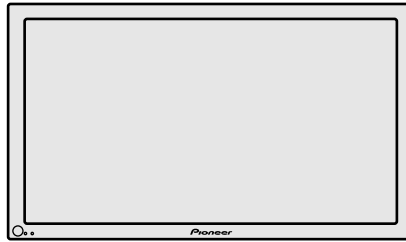


Service Manual



PDP-5004

ORDER NO.
ARP3221

PLASMA DISPLAY

PDP-5004

PDP-4304

PDP-5014

PDP-4314

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-5004	KUC	AC120V	
PDP-5014	KUC	AC120V	
PDP-4304	KUC	AC120V	
PDP-4314	KUC	AC120V	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-5004, PDP-5014 PDP-4304, PDP-4314	ARP3222	SCHEMATIC DIAGRAM, PCB CONNECTION DIAGRAM



For details, refer to "Important Check Points for Good Servicing".

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.



WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65



NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.

6. Perform the following precautions against unwanted radiation and rise in internal temperature.
 - Always return the internal wiring to the original styling.
 - Attach parts (Gasket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
 - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
 - Make sure that the panel vent does not break. (Check that the cover is attached.)
 - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
 - When the front case is removed, infrared ray is radiated and may disturb reception of the remote control unit.
 - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

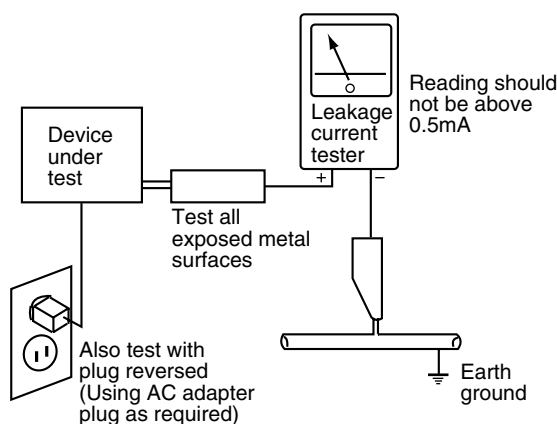
With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of $0.3\text{M}\Omega$ and a maximum resistor reading of $5\text{M}\Omega$. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).

Turn the AC power switch on.

Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA .



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Δ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

■Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.

If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. AC Power Cord
2. AC Inlet with Filter
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

1. POWER SUPPLY Unit.....(223V)
2. 50 X DRIVE Assy(-230V to 223V)
3. 50 Y DRIVE Assy(353V)
4. 50 SCAN A Assy (353V)
5. 50 SCAN B Assy (353V)
6. X CONNECTOR A Assy.....(-230V to 223V)
7. X CONNECTOR B Assy.....(-230V to 223V)

▨ : Part is Charged Section.

□ : Part is the High Voltage Generating Points other than the Charged Section.

•For 50 inch model (PDP-5004, PDP-5014)

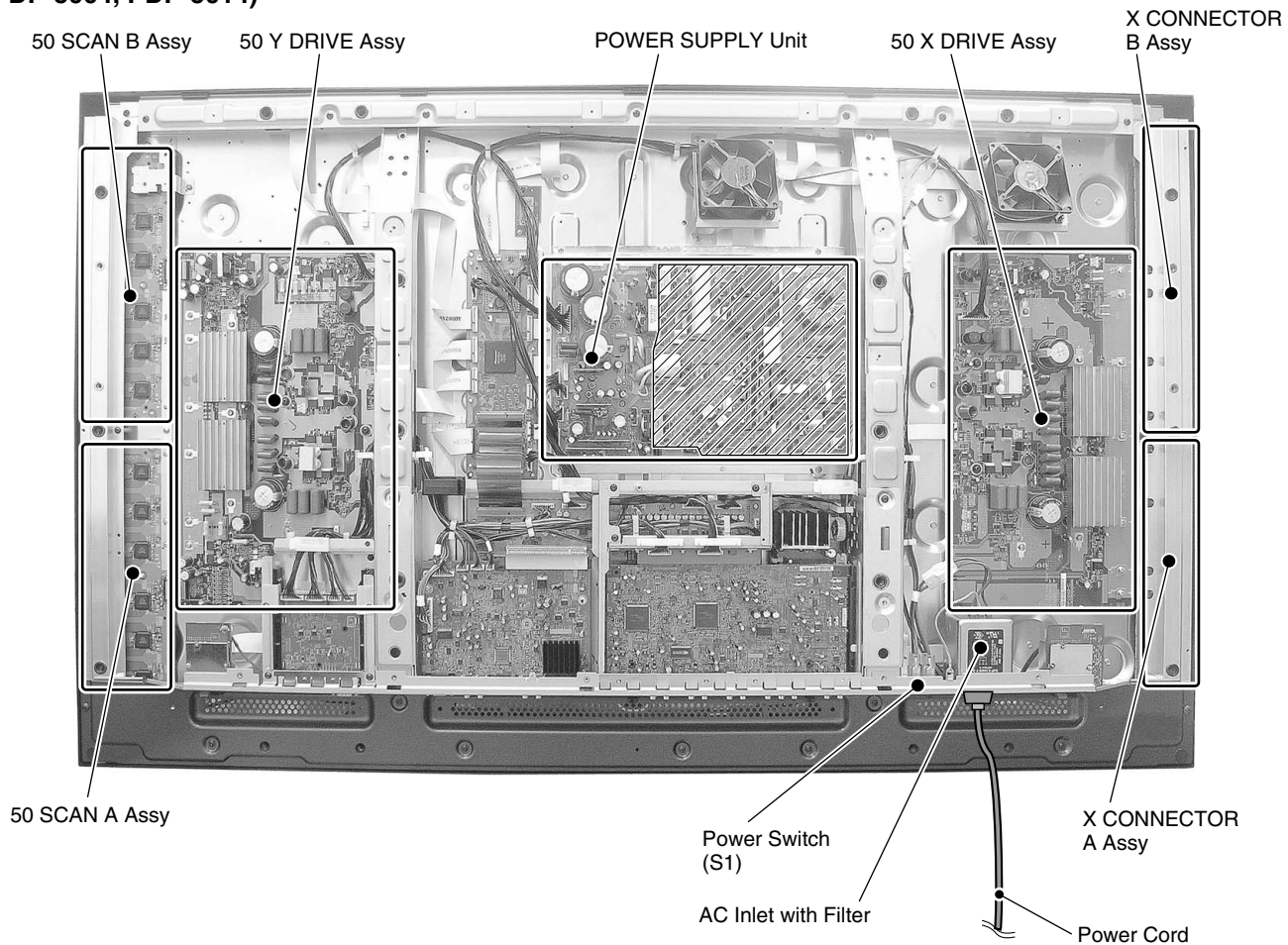


Fig.1 Charged Section and High Voltage Generating Point (Rear View)

■ Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.

If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. AC Power Cord
2. AC Inlet with Filter
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■ High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

1. POWER SUPPLY Unit..... (215V)
2. 43 X DRIVE Assy (–225V to 215V)
3. 43 Y DRIVE Assy (345V)
4. 43 SCAN A Assy (345V)
5. 43 SCAN B Assy (345V)
6. X CONNECTOR A Assy (–225V to 215V)
7. X CONNECTOR B Assy (–225V to 215V)

▨ : Part is Charged Section.
 □ : Part is the High Voltage Generating Points other than the Charged Section.

• For 43 inch model (PDP-4304, PDP-4314)

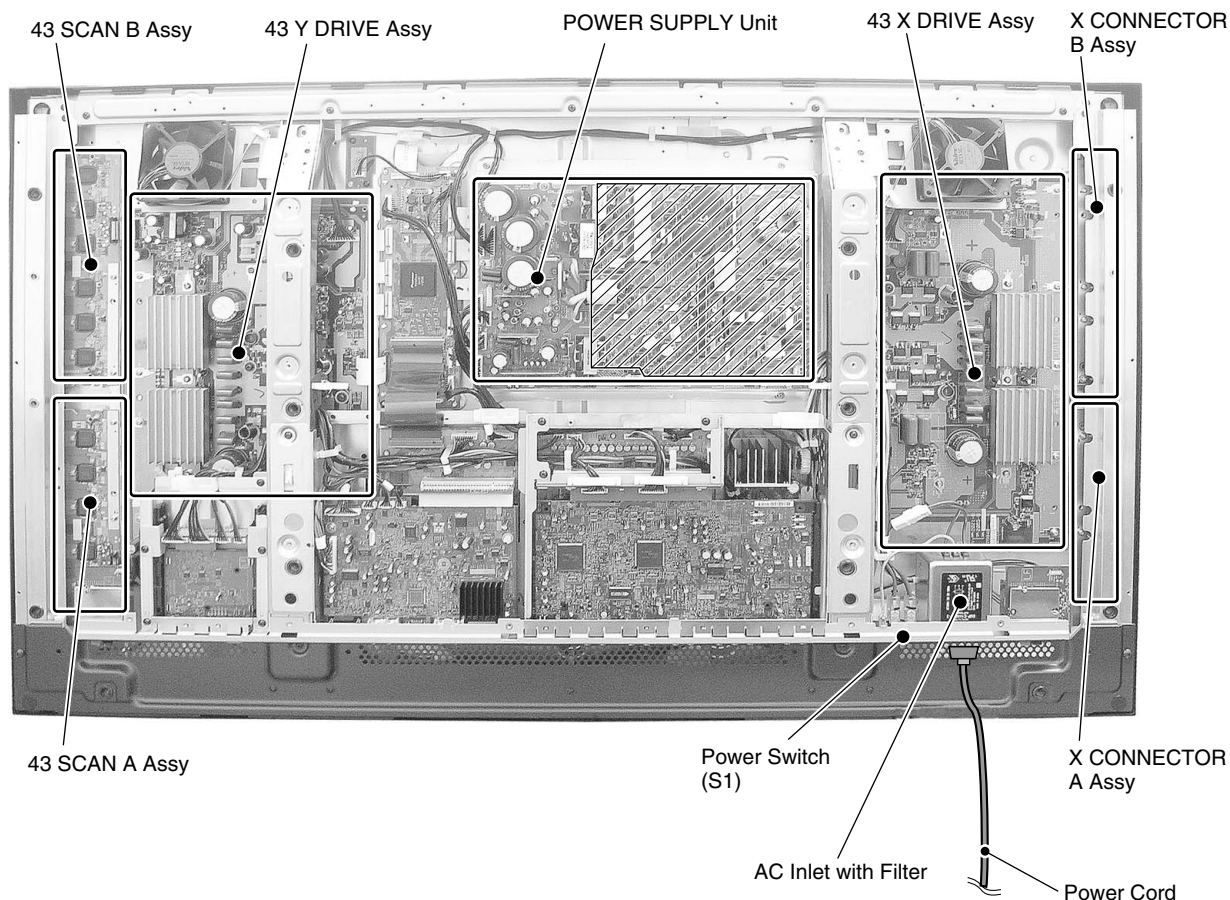


Fig.2 Charged Section and High Voltage Generating Point (Rear View)

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

■ PLASMA DISPLAY

General (PDP-5004 /PDP-5014)

Light emission panel 50-inch AC Plasma Panel
109.8 (W) x 62.1 (H) x 126.1 (diagonal) cm

Number of pixels 1280 x 768

Power supply AC 120 V, 60 Hz

Rated current 3.1 A

Standby power consumption 0.6 W

External dimensions

.... 1218 (W) x 714 (H) x 98 (D: Not including handles) mm
47-31/32 (W) x 28-1/8 (H) x 3-7/8
(D: Not including handles) in.

Weight 41.0 kg (90 lbs. 7 oz)

Operating temperature range 0 to 40 °C (32 to 104°F)

General (PDP-4304/ PDP-4314)

Light emission panel 43-inch AC Plasma Panel
95.2 (W) x 53.6 (H) x 109.3 (diagonal) cm

Number of pixels 1024 x 768

Power supply AC 120 V, 60 Hz

Rated current 2.6 A

Standby power consumption 0.6 W

External dimensions

.... 1070 (W) x 630 (H) x 98 (D: Not including handles) mm
42-1/8 (W) x 24-13/16 (H) x 3-7/8
(D: Not including handles) in.

Weight 33.5 kg (73 lbs. 14 oz)

Operating temperature range 0 to 40 °C (32 to 104°F)

Input/output

Video

INPUT1

Input

Mini D-sub 15 pin (socket connector)

- RGB signal (G ON SYNC compatible)

RGB ... 0.7 Vp-p/75Ω/no sync.

HD/CS, VD ... TTL level

/positive and negative polarity

/2.2 kΩ

G ON SYNC

... 1 Vp-p/75Ω/negative sync.

*Compatible with Microsoft Plug & Play
(VESA DDC1/2B)

- Component video signal

Y ... 1 Vp-p/75Ω negative sync.

Cb/Pb, Cr/Pr ... 0.7 Vp-p (color100%)/75Ω

INPUT2

Input

HDMI

- Digital signal
3.3V T.M.D.S. /50Ω

INPUT3

Input

S jack (Mini DIN 4 pin)

- Y/C separate video signal
Y ... 1 Vp-p/75Ω/negative sync.
C ... 0.286 Vp-p/75Ω
(Color Burst Level)

INPUT4

Input

RCA jack

- Composite video signal
1 Vp-p/75Ω/negative sync.

Output

RCA jack

75Ω /with buffer

INPUT5

Input

RCA jack

- Component video signal
Y...1 Vp-p /75Ω negative sync.
Cb/Pb, Cr/Pr...
0.7 Vp-p (color 100%) / 75Ω
- RGB signal
G ON SYNC ...
1 Vp-p/75Ω/negative sync.
R/B ... 0.7 Vp-p/75Ω/no sync.

Audio

Input

AUDIO INPUT (for INPUT1)

Pin jack (x2)

L/R ... 500 mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT2)

Pin jack (x2)

L/R ... 500 mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT3)

Pin jack (x2)

L/R ... 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT4)

Pin jack (x2)

L/R ... 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT5)

Pin jack (x2)

L/R ... 500mVrms/more than 10 kΩ

Output

SPEAKER

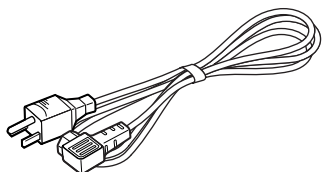
L/R ... 8 – 16Ω/7 W +7 W (at 8Ω)

Control

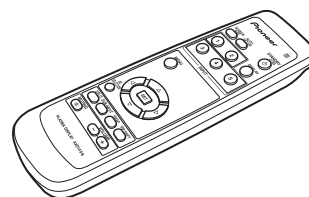
RS-232C... D-sub 9 pin (pin connector)

● Accessories

- Power Cord (ADG1215)



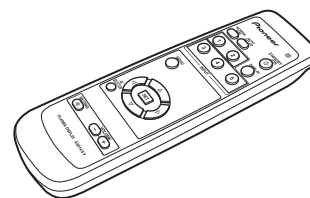
- Remote Control Unit for PDP-5004, PDP-4304 (AXD1496)



- Cleaning Cloth (for wiping front panel) (AED1208)

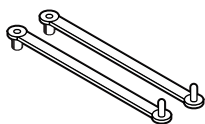


- Remote Control Unit for PDP-5014, PDP-4314 (AXD1497)



- Binder Assy (AEC1758)

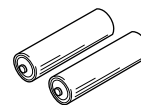
- Speed Clamp (×2)




- Bead Bands (×2)



- Dry Cell Battery (R6P, AA)

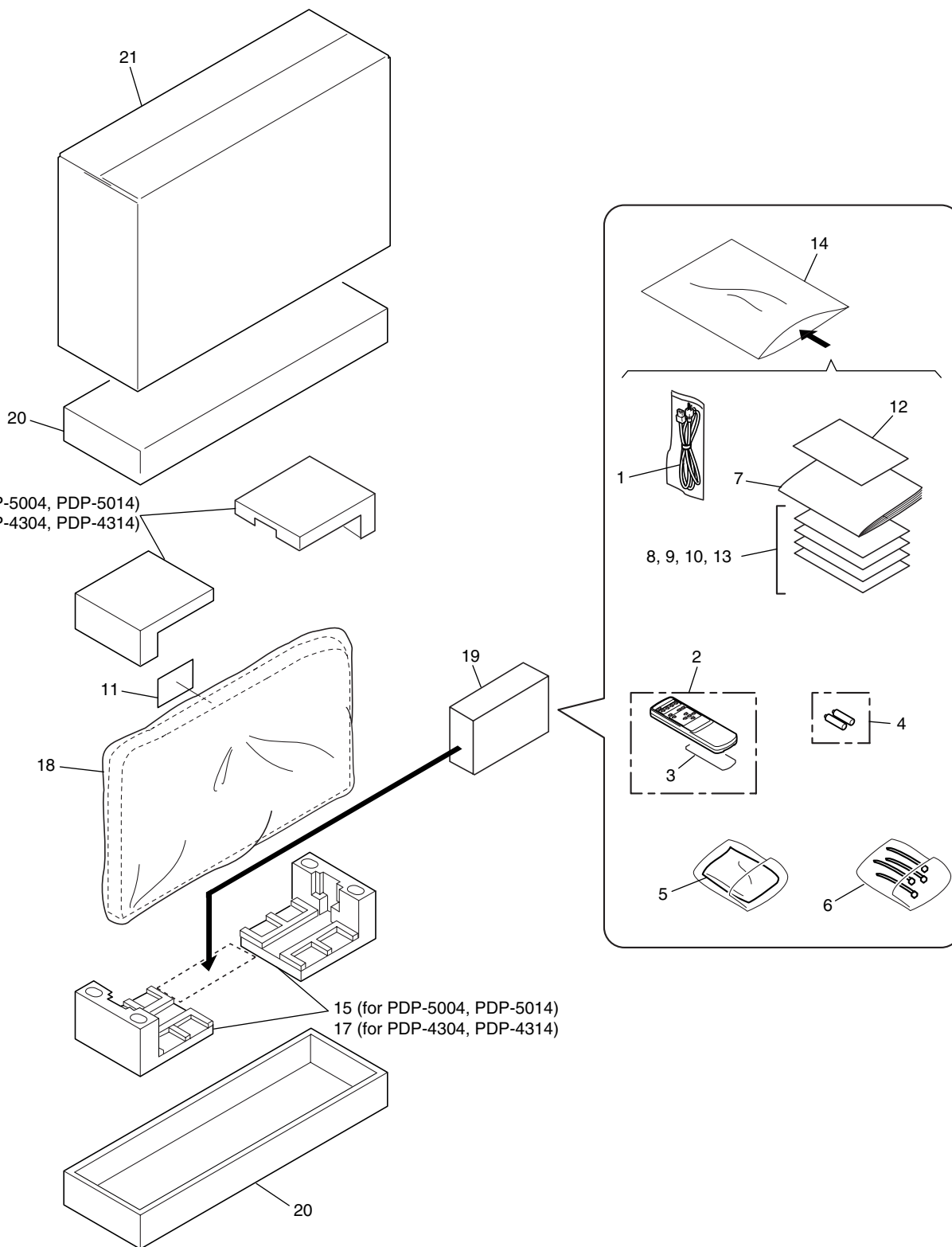


2. EXPLODED VIEWS AND PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screws adjacent to ▼ mark on product are used for disassembly.
 - For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING for PDP-5004, PDP-5014, PDP-4304 and PDP-4314 models

2.1.1 PACKING



PACKING Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
⚠ 1	Power Cord	ADG1215			
2	Remote Control Unit	See Contrast table (2)	14	Vinyl Bag	AHG1310
3	Battery Cover	AZN2462	15	Pad	See Contrast table (2)
NSP 4	Dry Cell Battery (R6P, AA)	AEX1026	16	Pad (43U)	See Contrast table (2)
5	Wiping Cloth (for screen)	AED1208	17	Pad (43L)	See Contrast table (2)
6	Binder Assy (Speed Clamp x2, Bead Band x2)	AEC1758	18	Mirror Mat	AHG1284
7	Operating Instructions (English / French / Spanish)	ARE1386	19	Accessory Case	AHC1036
8	Plasma Caution Sheet	ARM1145	20	Under Carton	See Contrast table (2)
			21	Upper Carton	See Contrast table (2)
9	Caution Sheet	ARM1176			
10	Caution Sheet	ARM1194			
11	Caution Sheet	ARM1201			
NSP 12	Warranty Card	ARY1138			
NSP 13	Card	VRY1132			

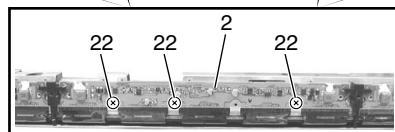
(2) CONTRAST TABLE

PDP-5004/KUC, PDP-5014/KUC, PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC	PDP-4304/ KUC	PDP-4314/ KUC
	2	Remote Control Unit	AXD1496	AXD1497	AXD1496	AXD1497
	15	Pad	AHA2280	AHA2280	Not used	Not used
	16	Pad (43U)	Not used	Not used	AHA2282	AHA2282
	17	Pad (43L)	Not used	Not used	AHA2283	AHA2283
	20	Under Carton	AHD3037	AHD3037	AHD3100	AHD3100
	21	Upper Carton	AHD3286	AHD3288	AHD3287	AHD3289

△

F



CHASSIS SECTION (1) parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
NSP 1	P. Chassis (50) Assy	AWU1099	15	PCB Spacer	AEC1941	
NSP 2	50 ADDRESS Assy	AWZ6839				A
3	DIGITAL VIDEO Assy	AWV2100	16	PCB Support	AEC1938	
4	FPC (114P)	ADY1081	17	Wire Saddle	AEC1745	
5	Flexible Cable (J201)	ADD1248	18	PCB Spacer	AEC1947	
			19	Locking Wire Saddle	AEC1948	
6	Flexible Cable (J203)	ADD1250	20	Drive Silicone Sheet C	AEH1066	
7	Flexible Cable (J204)	ADD1251				
8	Flexible Cable (J209)	ADD1236	21	Drive Silicone Sheet B	AEH1065	
9	Flexible Cable (J210)	ADD1237	22	Screw	VBB30P080FNI	
10	Flexible Cable (J205)	ADD1252	23	Flexible Cable (J202)	ADD1249	
			24	Locking Wire Saddle	AEC1992	
11	Flexible Cable (J206)	ADD1253	25	SCAN Silicone Sheet	AEH1080	B
12	Flexible Cable (J207)	ADD1254				
13	Flexible Cable (J208)	ADD1255				
14	Flat Clamp	AEC1879				

A



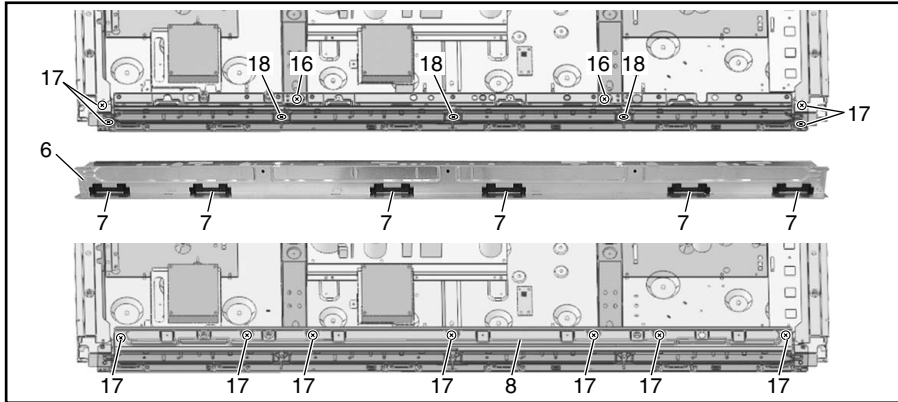
CHASSIS SECTION (2) parts List

Mark No.	Description	Part No.
1	50 X DRIVE Assy	AWZ6959
2	50 Y DRIVE Assy	AWV2144
⚠ 3	POWER SUPPLY Unit	AXY1083
NSP 4	X CONNECTOR B Assy	AWZ6812
NSP 5	X CONNECTOR A Assy	AWZ6811
NSP 6	50 SCAN A Assy	AWZ6809
NSP 7	50 SCAN B Assy	AWZ6810
8	PANEL SENSOR Assy	AWZ6795
9	Fan Motor (80 x 25)	AXM1044
10	Fan Angle (504)	ANG2609
11	Front Chassis VL (50M)	ANA1753
12	Front Chassis VR (50M)	ANA1754
13	SCAN Heatsink	ANH1630
14	Housing Wire (J117)	ADX2897
15	Screw	ABZ30P060FMC
16	Screw	PMB30P060FNI
17	Screw	VBB30P080FNI
18	Screw	PMB40P080FZK
19	Screw	PPZ50P100FZK
20	Nylon Rivet	AEC1671
21	Screw	AMZ30P060FZK
22	3P Housing Wire (J109)	ADX2847
23	11P Housing Wire (J102)	ADX2853
24	12P Housing Wire (J103)	ADX2854
25	Wire A (J101)	ADX2839
26	WireD (J118)	ADX3030
27	5P Housing Wire (J119)	ADX3031
28	9P Housing Wire (J115)	ADX2895

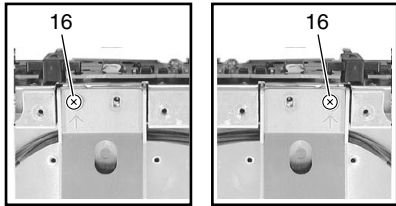
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2.2.3 FRAME SECTION

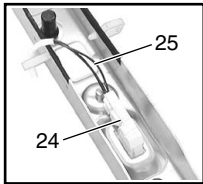
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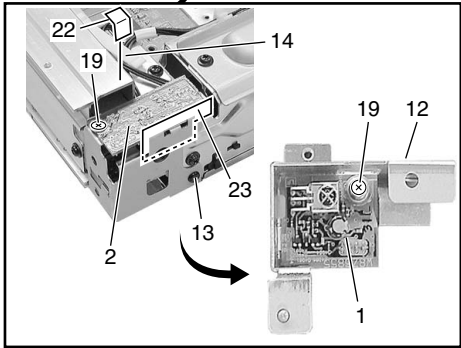
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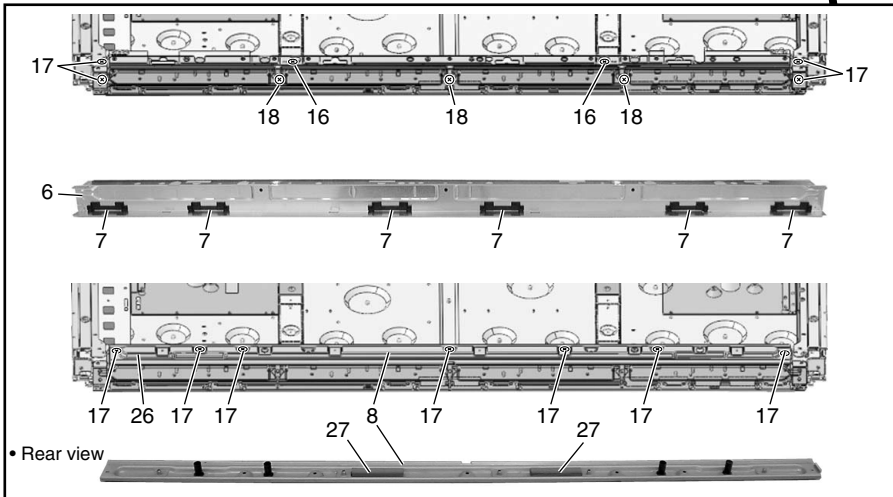
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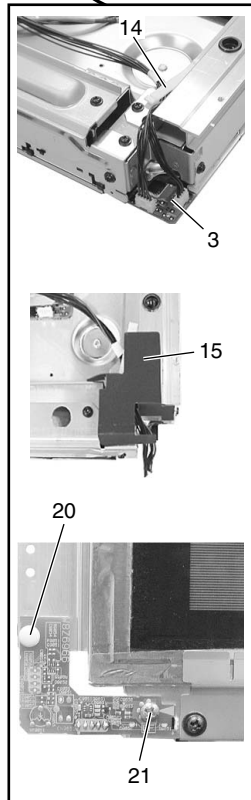
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FRAME SECTION parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	IR RECEIVE Assy	AWZ6855
2	KEY CONTROL Assy	AWZ6969
3	LED Assy	AWZ6966
4	Sub Frame L Assy (50M)	ANG2596
5	Sub Frame R Assy (50M)	ANG2598
6	Front Chassis H (50)	ANA1733
7	Front Spacer (CMX)	AMR3384
8	Rear Frame (50M)	ANG2602
9	Locking Wire Saddle	AEC1948
10	Locking Wire Saddle	AEC1992
11	Wire Saddle	AEC1745
NSP 12	IR Holder	ANG2551
13	Nylon Rivet	AEC1671
14	Flat Clamp	AEC1879
15	Enclosure Sheet 1	AMR3405
16	Screw	AMZ30P080FMC
17	Screw	AMZ30P060FZK
18	Screw	APZ30P080FZK
19	Screw	ABZ30P060FMC
20	Nylon Rivet	AEC1997
21	Screw	BBZ30P050FMC
22	Enclosure Sheet 2 (V)	AMR3411
23	Enclosure Sheet 3	AMR3407
24	Power Switch (S2)(TRAP)	ASG1089
25	3P Housing Wire (J114)	ADX3032
26	Gasket S (CM)	ANK1749
27	Gasket (CM)	ANK1748

4



TERMINAL PANEL and REAR SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	COMM SLOT I/F Assy	AWZ6964	21	Power Switch (S1)	ASG1094
2	COMM SLOT Assy	AWZ6968	22	Housing Wire (MX)(J116)	ADX2896
3	AC Inlet (CN1)	AKP1244	23	COMM Stay A	ANG2605
4	SP TERMINAL R Assy	AWZ6857	24	COMM Stay B	ANG2606
5	SP TERMINAL L Assy	AWZ6856	25	Screw	APZ30P080FZK
6	Guide Rail EX	AEC1994	26	Rear Case (50M)	ANE1623
7	6P Housing Wire (J108)	ADX3029	27	Gasket T-R50	ANK1735
8	Wire Saddle	AEC1745	NSP 28	Name Label	See Contrast table (2)
9	Clamp	AEC1884	29	Caution Label	AAX3048
10	Terminal Panel (F50)	ANG2685	30	Screw	TBZ40P080FZK
11	Gasket SP-T	ANK1734	31	Grip	AMR3380
12	•••••		32	Screw	HMB50P140FZK
13	Slot Spring B126	ABK1033	33	Terminal Label R (SF50C)	AAX3126
14	Slot Spring T130	ABK1032	34	Terminal Label C (SF50C)	AAX3130
15	Slot Spring T94	ABK1034	35	Terminal Label V (CM)	AAX3137
16	Slot Spring B92	ABK1035	36	Rear Corner Label (15)	AAX3081
17	Screw	VBB30P080FNI	37	VIDEO SLOT 2 Assy	AWV2159
18	Screw	AMZ30P060FZK	38	Screw	ABA1300
19	•••••		39	Terminal Label L (50M)	AAX3061
20	Hexagon Head Screw	BBA1051	40	Screw	BMZ30P080FZK

(2) CONTRAST TABLE

PDP-5004/KUC and PDP-5014/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC
NSP	28	Name Label (SF50C)	AAL2593	Not used
NSP	28	Name Label (SF50S)	Not used	AAL2595

1 2 3 4 2.2.5 FRONT SECTION

A

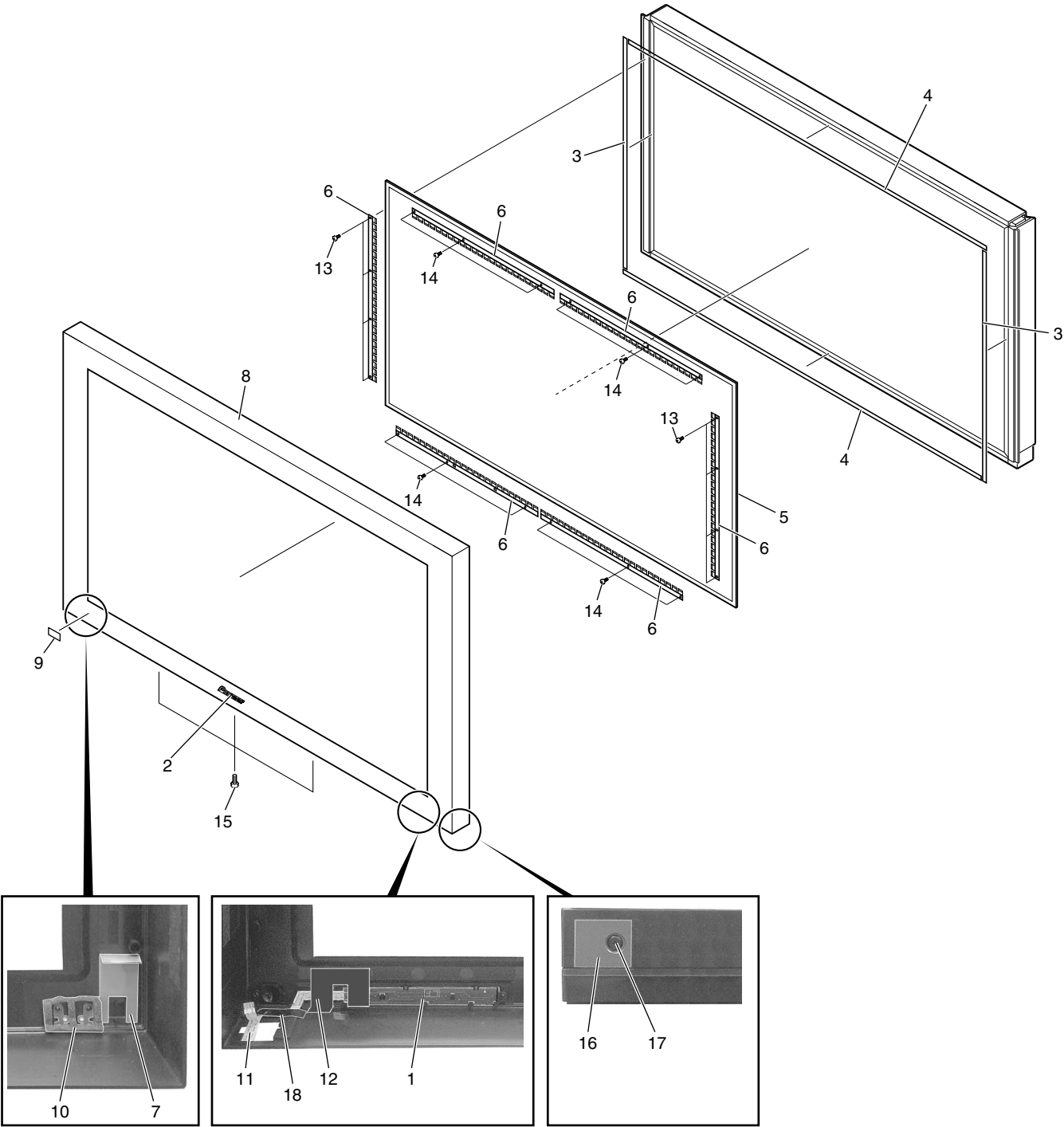
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FRONT SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	FRONT KEY Assy	AWZ6970	11	Flexible Cable (J211)	ADD1281
2	PIONEER Badge	AAM1091	12	Flexible Seal (P)	AEH1072
3	Panel Cushion V	AED1199	13	Screw	ABZ30P060FMC
4	Panel Cushion H	AED1226	14	Screw	APZ30P080FZK
⚠ 5	Protect Panel Assy (50)	AMR3348	15	Screw	APZ30P120FZK
6	Panel Holder (50)	ANG2563	16	Lead Cover	See Contrast table (2)
7	Earth Plate (MX)	AMR3432	17	Rivet	AEC1877
8	Front Case Assy	See Contrast table (2)	18	Flexible Seal (SF)	AEH1082
NSP 9	Energy Star Label	AAX8022			
10	Blind Cushion	AEB1400			

(2) CONTRAST TABLE

PDP-5004/KUC and PDP-5014/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC
	8	Front Case Assy (F50C)	AMB2843	Not used
	8	Front Case Assy (F50S)	Not used	AMB2844
	16	Lead Cover (SF)	AMR3436	Not used
	16	Lead Cover (4G)	Not used	AMR3395

2.2.6 PANEL CHASSIS (50) ASSY (AWU1099)

Panel Chassis (50) Assy (AWU1099)

• Parts List

A	Mark No.	Description	Part No.
	NSP	1..50 ADDRESS Assy	AWV2121
	NSP	2..50 ADDRESS Assy	AWZ6839
	NSP	1..50 SCAN FUKUGO Assy	AWV2036
	NSP	2..50 SCAN A Assy	AWZ6809
	NSP	2..50 SCAN B Assy	AWZ6810
	NSP	2..X CONNECTOR A Assy	AWZ6811
	NSP	2..X CONNECTOR B Assy	AWZ6812
	NSP	Address Module (IC1-IC40)	AXF1124
	NSP	Plasma Panel Assy (50")(V1)	AAV1251
B	NSP	FPC (50XGA-X)	ADY1084
	NSP	FPC (50XGA-Y)	ADY1085
	NSP	Chassis Assy (50)	ANA1774
		Edge Card Spacer	AEC1998
		PCB Spacer	AEC1944
		PCB Support	AEC1958
		Rivet	AMR1066
		FC Spacer	AMR3370
C	NSP	Adhesive	ZBA-KE3424S
	NSP	Cleaner	ZLX-AP7
	NSP	Tape	ZTA-8101-12
	NSP	Double Faced Tape	ZTB-5015-18
	NSP	Tape	ZTC-POLYCA-11
	NSP	Tape	ZTC-POLYCA-20
	NSP	Double Faced Tape	ZTB-5015-9
	NSP	Tape	ZTC-900UL-15
	NSP	Silicone Rubber	ZTX-HC20-15
	NSP	Wiping Cloth	ZTX-MX100-13
D	NSP	Film	ZTX-2102Y35-2R5
	NSP	Film	ZTX-2102Y45-5
	NSP	Silicone Rubber	ZTX-HC50-15
	NSP	Silicone Rubber	ZTC-EM7KBOR85T-15W

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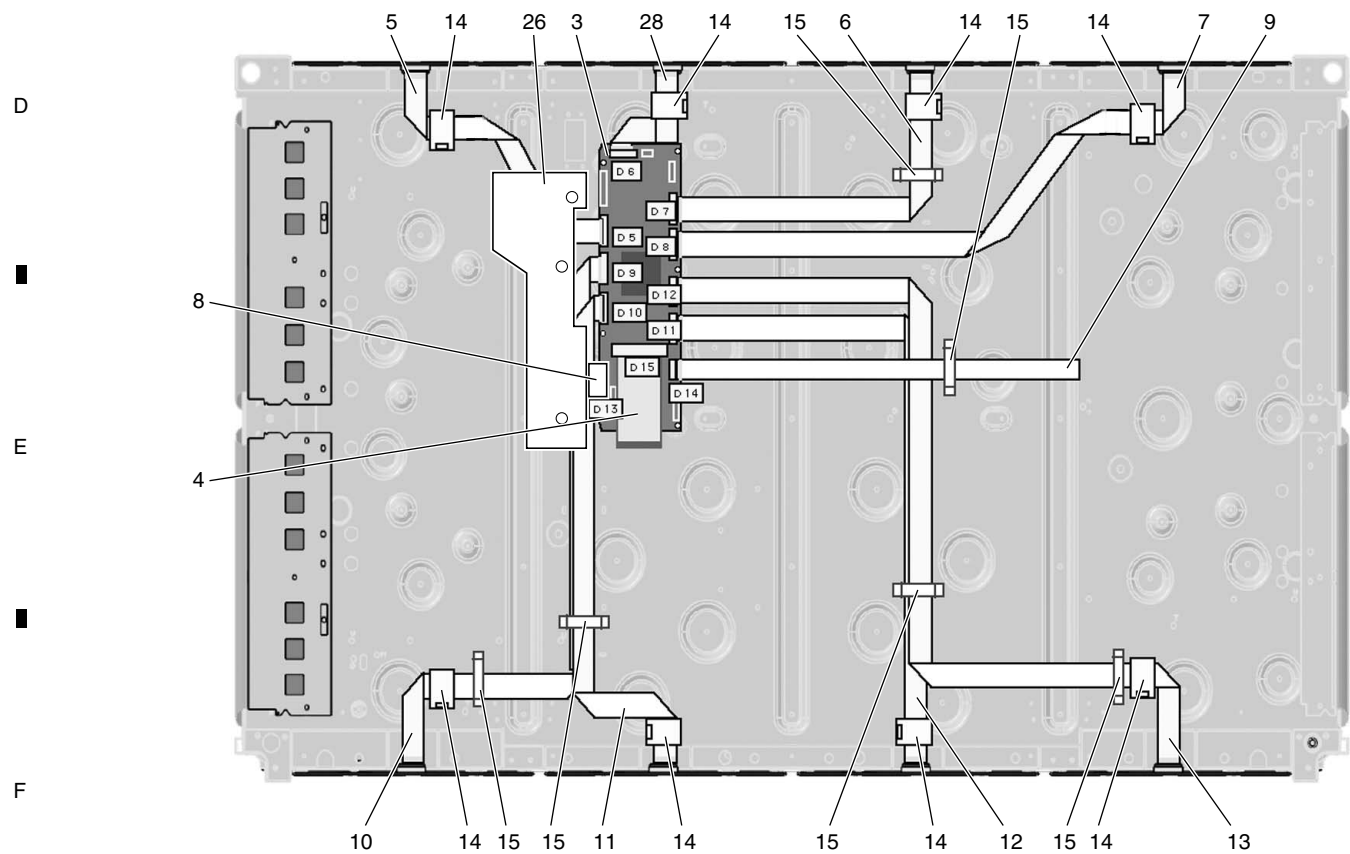
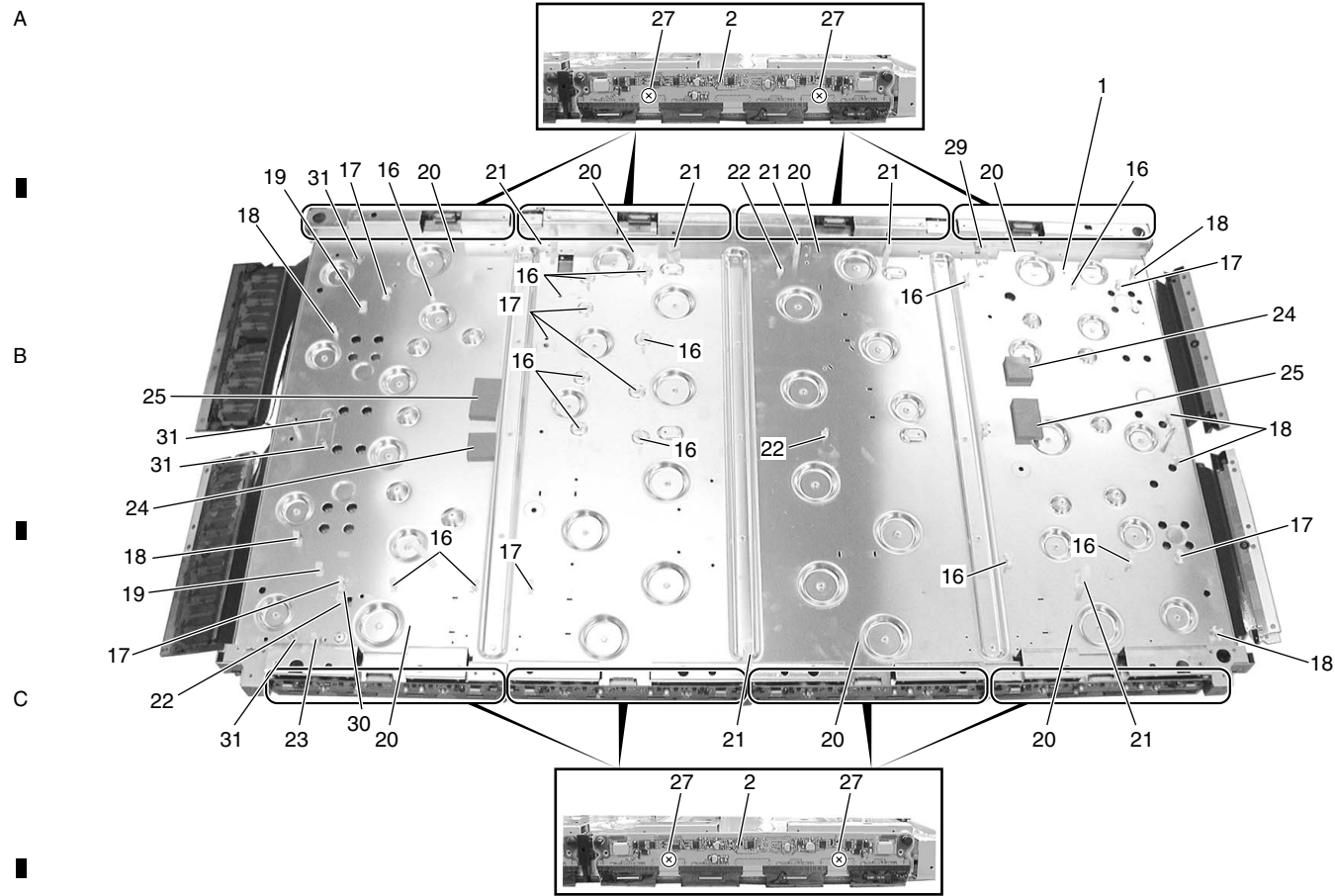
2.2.7 PDP SERVICE ASSY (AWU1108)

PDP SERVICE Assy (AWU1108)

• Parts List

Mark No.	Description	Part No.	
NSP	P. Chassis (50) Assy	AWU1099	A
NSP	Front Chassis H (50)	ANA1733	
	F. Chassis VL (50M)	ANA1765	
	F. Chassis VR (50M)	ANA1766	
	Sub Frame L Assy (50M)	ANG2638	
	Sub Frame R Assy (50M)	ANG2561	
	Scan Heatsink	ANH1630	
	Spacer	AEB1397	
	Wire Saddle	AEC1745	
	Clamp	AEC1884	B
	PCB Support	AEC1938	
	PCB Spacer	AEC1941	
	PCB Spacer	AEC1947	
	Wire Clip	AEC1948	
	Wire Clip	AEC1992	
	Panel Cushion V	AED1199	
	Panel Cushion H	AED1226	
	Siricon Sheet SC	AEH1080	
	Front Spacer	AMR3369	C
	Caution Label	AAX3031	
NSP	Drive Voltage Label	ARW1097	
	Screw	ABZ30P100FZK	
	Screw	AMZ30P060FZK	
	Screw	AMZ30P080FMC	
	Screw	APZ30P080FZK	
NSP	Front Case (504 SVC)	AMB2811	
	Rear Case (50P)	ARM1247	
	Caution Card (SVC)	AHA2280	D
	Pad (PP T-L)	AHA2315	
	Pad (PP T-R)	AHA2316	
	Center Pad (50)	AHA2335	
	Pad (PP B-L)	AHA2343	
	Pad (PP B-R)	AHA2344	
	Sub Carton	AHB1248	
	Carton (50)	AHD3177	
NSP	Upper Carton (504SVC)	AHD3212	E
	Protect Sheet	AHG1331	

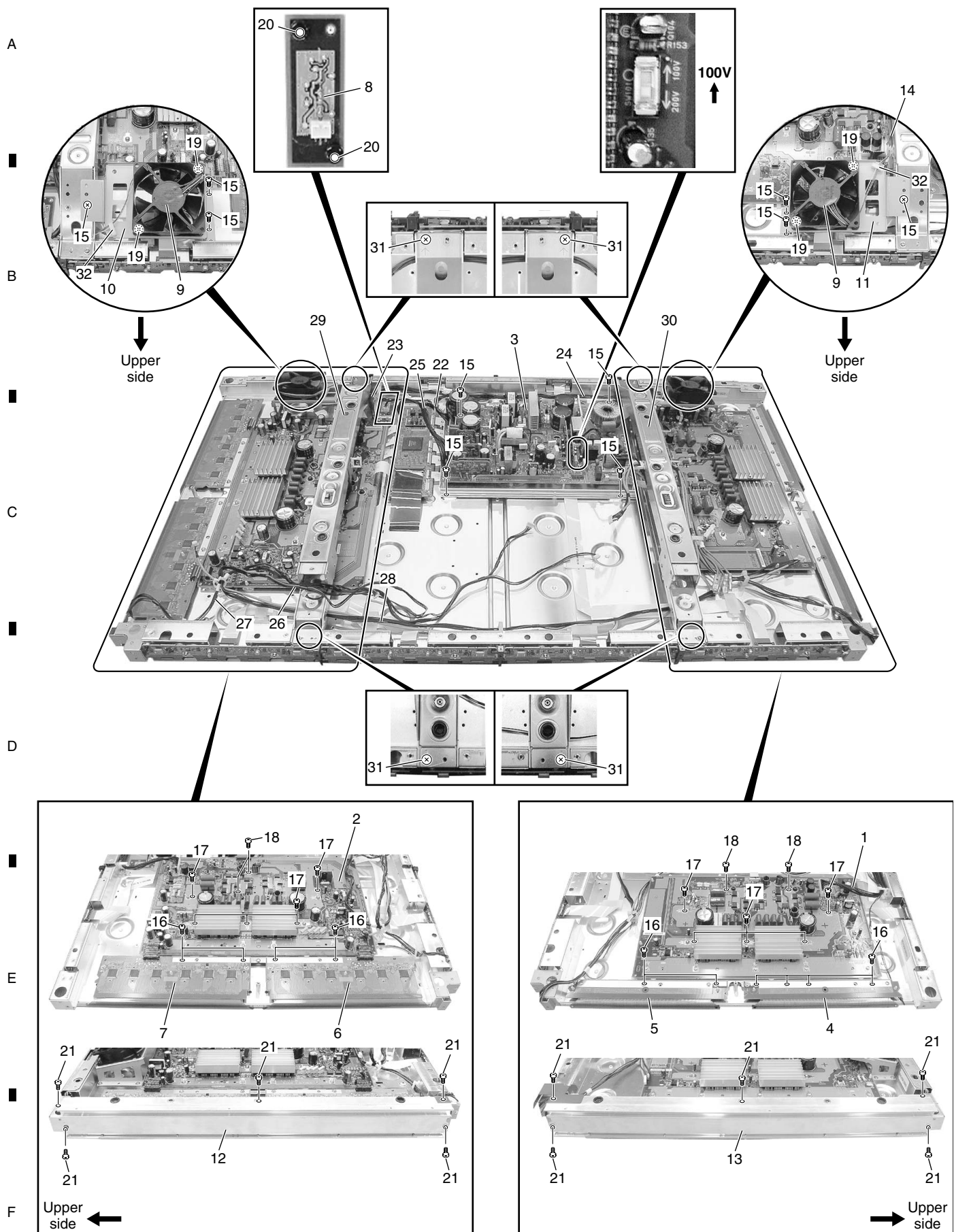
2.3 PDP-4304, PDP-4314 models
2.3.1 CHASSIS SECTION (1)



CHASSIS SECTION (1) parts List

Mark No.	Description	Part No.
NSP 1	P. Chassis (43) Assy	AWU1098
NSP 2	43 ADDRESS Assy	AWZ6793
3	DIGITAL VIDEO Assy	AWV2100
4	FPC (114P)	ADY1081
5	Flexible Cable (J201)	ADD1257
6	Flexible Cable (J203)	ADD1259
7	Flexible Cable (J204)	ADD1260
8	Flexible Cable (J209)	ADD1223
9	Flexible Cable (J210)	ADD1224
10	Flexible Cable (J205)	ADD1261
11	Flexible Cable (J206)	ADD1262
12	Flexible Cable (J207)	ADD1263
13	Flexible Cable (J208)	ADD1264
14	Ferrite Core	ATX1048
15	Flat Clamp	AEC1879
16	PCB Spacer	AEC1941
17	PCB Support	AEC1938
18	PCB Spacer	AEC1944
19	PCB Support	AEC1958
20	Ferrite Clamp	AEC1986
21	Wire Saddle	AEC1745
22	PCB Spacer	AEC1947
23	Locking Wire Saddle	AEC1948
24	Drive Silicone Sheet C	AEH1066
25	Drive Silicone Sheet B	AEH1065
26	Y Drive Protection Sheet	AMR3346
27	Screw	VBB30P080FNI
28	Flexible Cable (J202)	ADD1258
29	Locking Wire Saddle	AEC1992
30	Harness Lifter 18	AEC1980
31	Edge Card Spacer	AEC1998

2.3.2 CHASSIS SECTION (2)



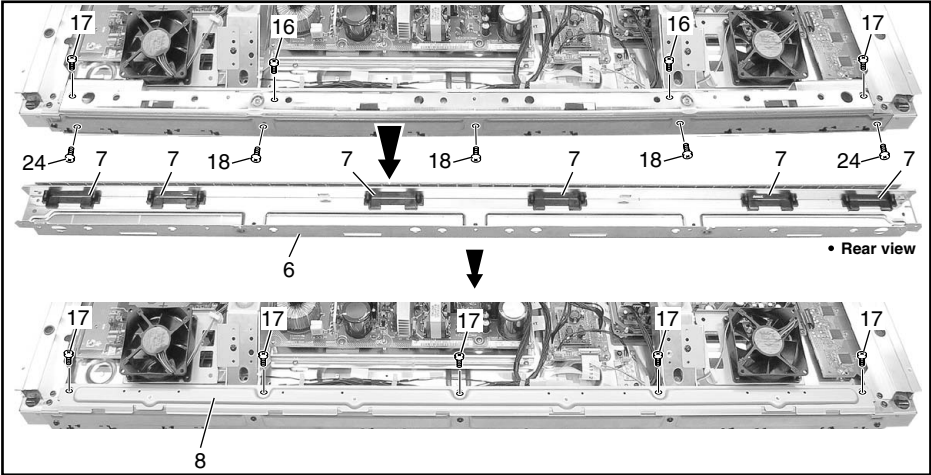
CHASSIS SECTION (2) parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	43 X DRIVE Assy	AWZ6840
2	43 Y DRIVE Assy	AWV2022
⚠ 3	POWER SUPPLY Unit	AXY1083
NSP 4	X CONNECTOR B Assy	AWZ6799
NSP 5	X CONNECTOR A Assy	AWZ6798
NSP 6	43 SCAN A Assy	AWZ6796
NSP 7	43 SCAN B Assy	AWZ6797
8	PANEL SENSOR Assy	AWZ6795
⚠ 9	Fan Motor (80 x 25)	AXM1044
10	Fan Angle L (43M)	ANG2655
11	Fan Angle R (43M)	ANG2656
12	Front Chassis VL (43M)	ANA1755
13	Front Chassis VR (43M)	ANA1756
14	Housing Wire for Fan (J117)	ADX2904
15	Screw	ABZ30P060FMC
16	Screw	PMB30P060FNI
17	Screw	VBB30P080FNI
18	Screw	PMB40P080FZK
19	Screw	PPZ50P100FZK
20	Nyron Rivet	AEC1671
21	Screw	AMZ30P060FZK
22	3P Housing Wire (J109)	ADX2847
23	11P Housing Wire (J102)	ADX2840
24	12P Housing Wire (J103)	ADX2841
25	Wire A (J101)	ADX2839
26	Wire G (J118)	ADX3034
27	5P Housing Wire (J119)	ADX3035
28	9P Housing Wire (J115)	ADX2902
29	Sub Frame L Assy (43M)	ANG2623
30	Sub Frame R Assy (43M)	ANG2625
31	Screw	AMZ30P080FMC
32	Locking Wire Saddle	AEC1948

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2.3.3 FRAME SECTION

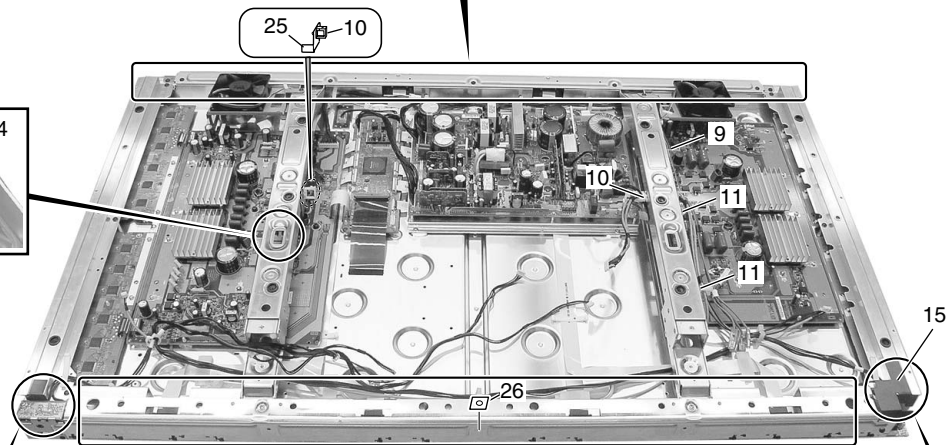
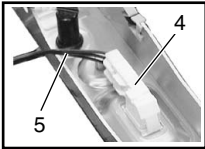
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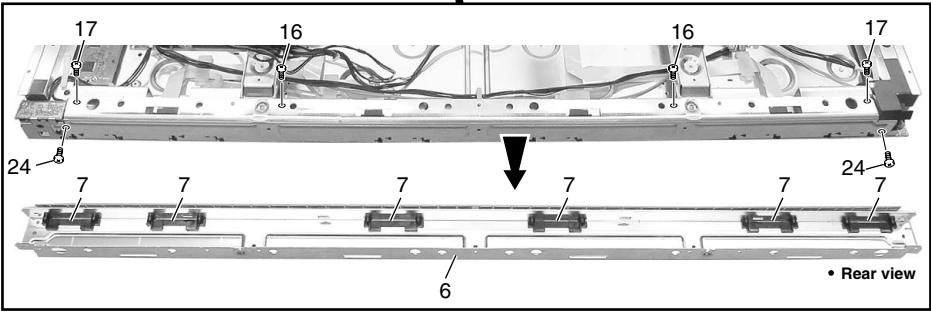
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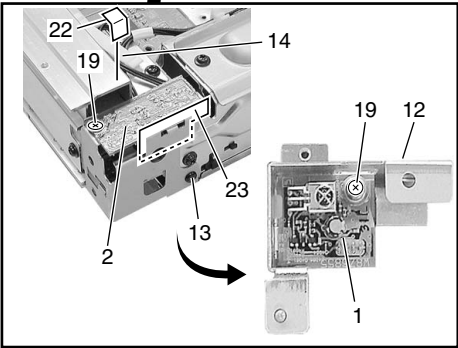
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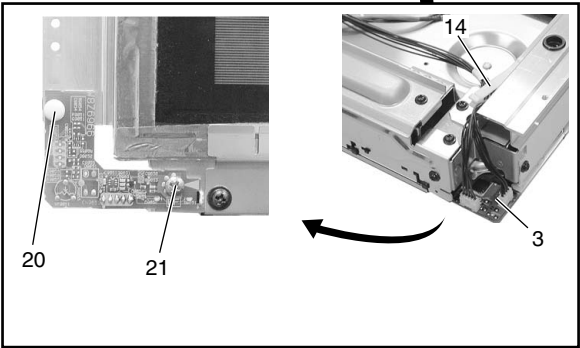
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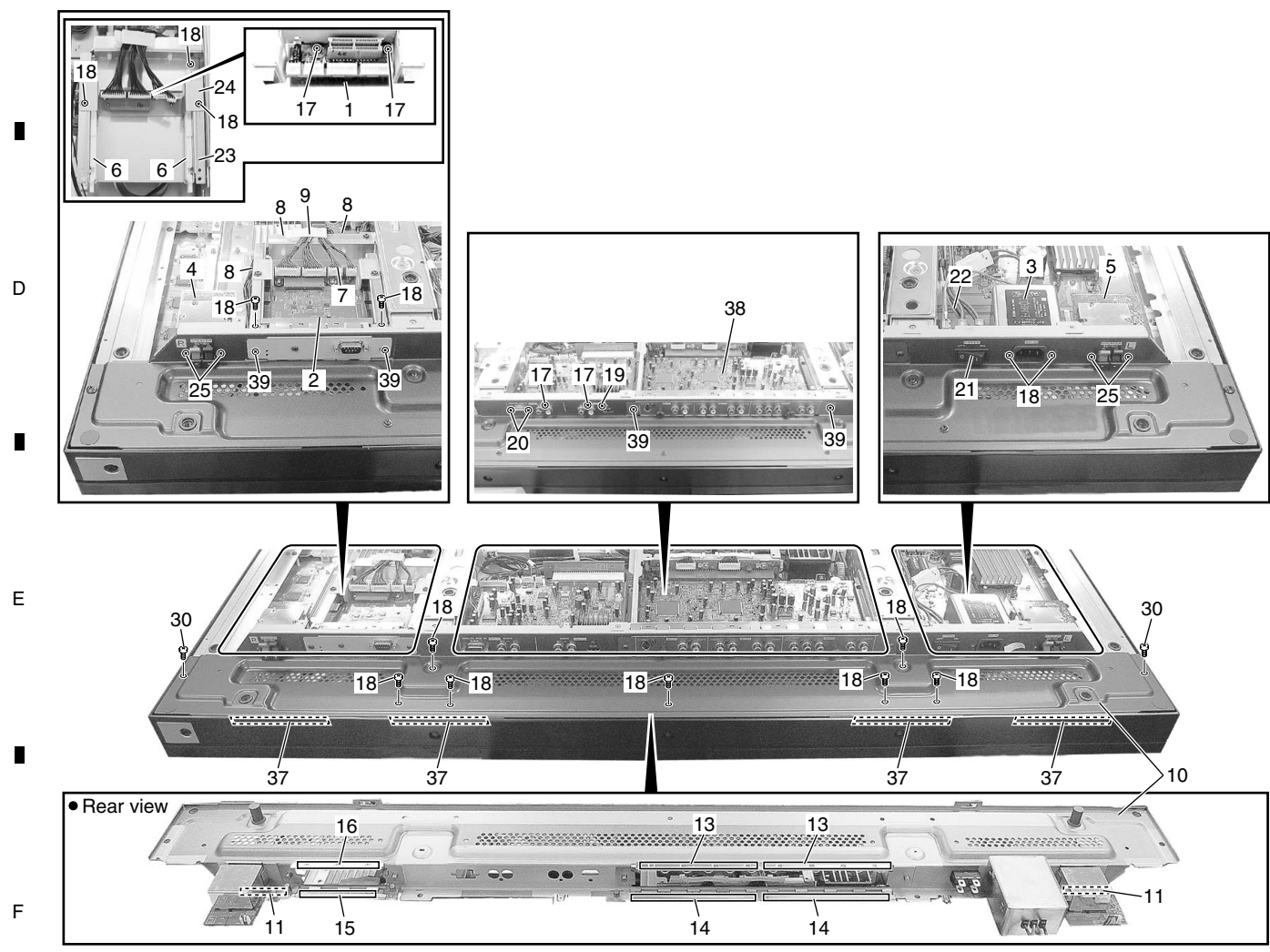
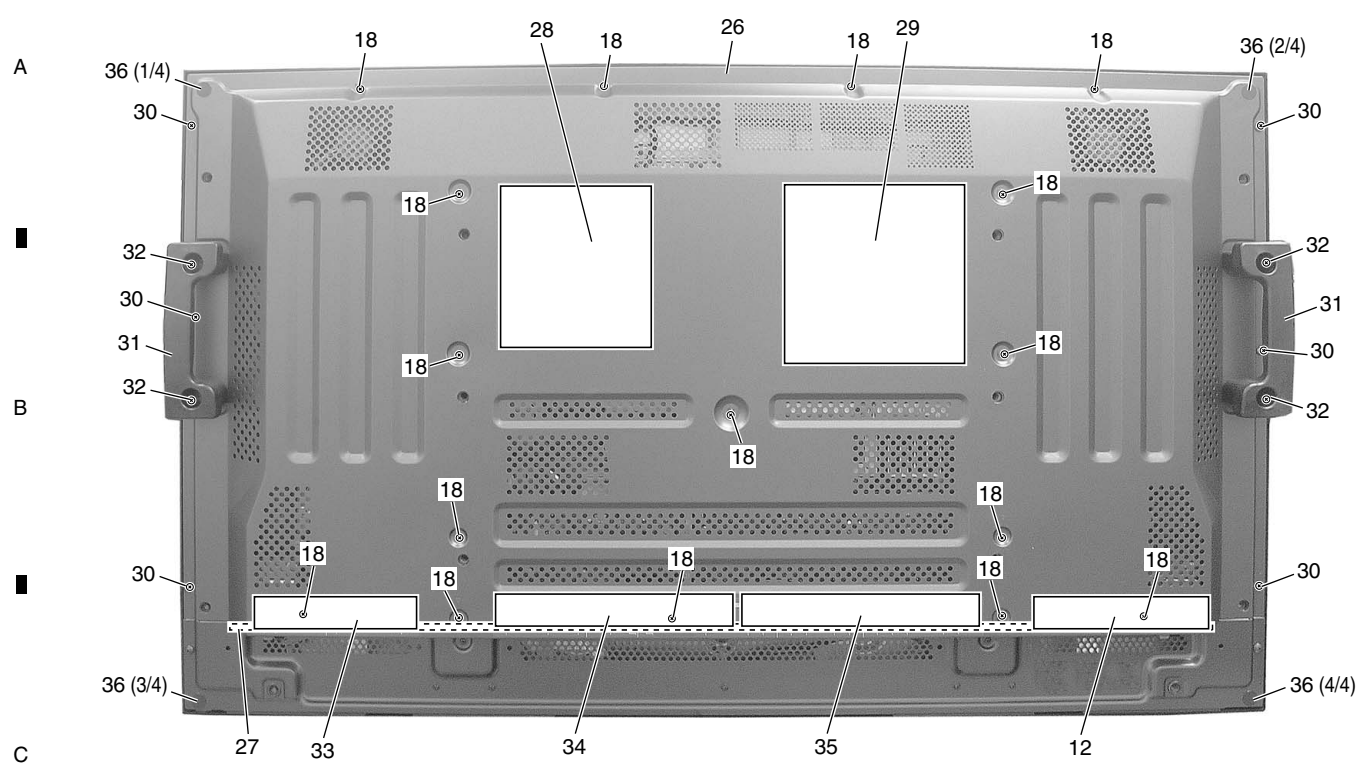


FRAME SECTION parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	IR RECEIVE Assy	AWZ6855
2	KEY CONTROL Assy	AWZ6969
3	LED Assy	AWZ6966
4	Power Switch (S2)(TRAP)	ASG1089
5	3P Housing Wire (J114)	ADX3036
6	Front Chassis H (43)	ANA1714
7	Front Spacer (CMX)	AMR3384
8	Rear Frame (43M)	ANG2613
9	Locking Wire Saddle	AEC1948
10	Locking Wire Saddle	AEC1992
11	Wire Saddle	AEC1745
NSP 12	IR Holder	ANG2551
13	Nyron Rivet	AEC1671
14	Flat Clamp	AEC1879
15	Enclosure Sheet 1	AMR3405
16	Screw	AMZ30P080FMC
17	Screw	AMZ30P060FZK
18	Screw	APZ30P080FZK
19	Screw	ABZ30P060FMC
20	Nyron Rivet	AEC1997
21	Screw	BBZ30P050FMC
22	Enclosure Sheet 2 (V)	AMR3411
23	Enclosure Sheet 3	AMR3407
24	Screw	PMB30P060FNI
25	Cable Cover	AMR3431
NSP 26	Front Case Spacer	AMR3430

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2.3.4 TERMINAL PANEL and REAR SECTION



TERMINAL PANEL and REAR SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	COMM SLOT I/F Assy	AWZ6964	21	Power Switch (S1)	ASG1094
2	COMM SLOT Assy	AWZ6968	22	Housing Wire (MX)(J116)	ADX2896
3	AC Inlet (CN1)	AKP1244	23	COMM Stay A	ANG2605
4	SP TERMINAL R Assy	AWZ6857	24	COMM Stay B	ANG2606
5	SP TERMINAL L Assy	AWZ6856	25	Screw	APZ30P080FZK
6	Guide Rail EX	AEC1994	26	Rear Case (43M)	ANE1624
7	6P Housing Wire (J108)	ADX3033	27	Gasket T-R43	ANK1736
8	Wire Saddle	AEC1745	NSP 28	Name Label	See Contrast table (2)
9	Clamp	AEC1884	29	Caution Label (M)	AAX3048
10	Terminal Panel (F43)	ANG2687	30	Screw	TBZ40P080FZK
11	Gasket SP-T	ANK1734	31	Grip	AMR3380
12	Terminal Label L (43M)	AAX3062	32	Screw	HMB50P140FZK
13	Slot Spring B126	ABK1033	33	Terminal Label R (SF43C)	AAX3128
14	Slot Spring T130	ABK1032	34	Terminal Label C (SF43C)	AAX3130
15	Slot Spring T94	ABK1034	35	Terminal Label V (CM)	AAX3137
16	Slot Spring B92	ABK1035	36	Rear Corner Label (15)	AAX3081
17	Screw	VBB30P080FNI	37	Spacer	AMR3433
18	Screw	AMZ30P060FZK	38	VIDEO SLOT 2 Assy	AWV2159
19	Screw	BMZ30P080FZK	39	Screw	ABA1300
20	Hexagon Head Screw	BBA1051			

(2) CONTRAST TABLE

PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-4304/ KUC	PDP-4314/ KUC
NSP	28	Name Label (SF43C)	AAL2594	Not used
NSP	28	Name Label (SF43S)	Not used	AAL2596

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2.3.5 FRONT SECTION

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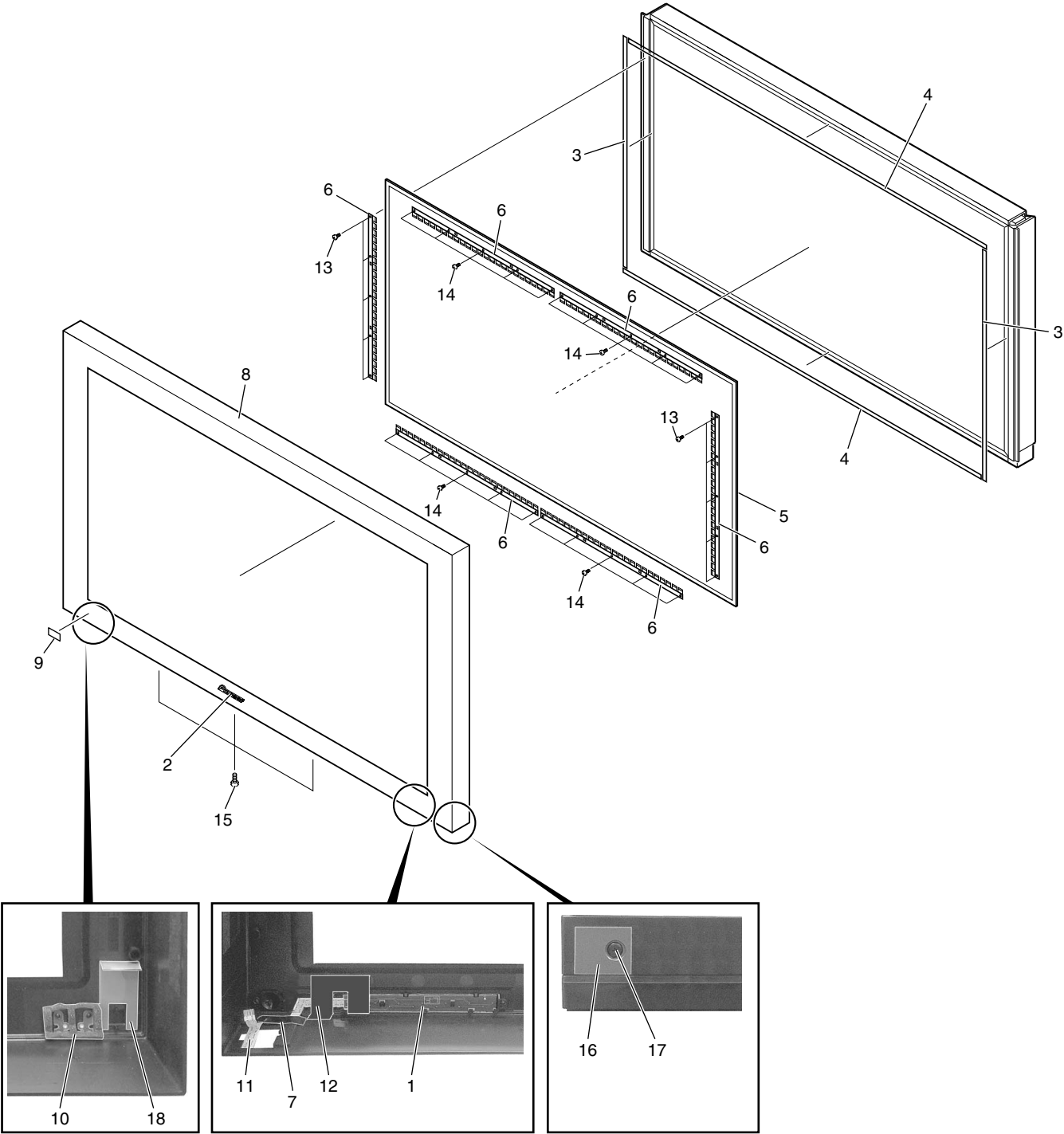
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FRONT SECTION (1) parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	FRONT KEY Assy	AWZ6970	11	Flexible Cable (J211)	ADD1281
2	Pioneer Name Plate	AAM1091	12	Flexible Seal (P)	AEH1072
3	Panel Cushion V (43M)	AED1254	13	Screw	ABZ30P060FMC
4	Panel Cushion H (43M)	AED1253	14	Screw	APZ30P080FZK
⚠ 5	Protect Panel Assy (43)	AMR3345	15	Screw	APZ30P120FZK
NSP 6	Panel Holder (43)	ANG2552	16	Lead Cover	See Contrast table (2)
7	Flexible Seal (SF)	AEH1082	17	Rivet	AEC1877
8	Front Case Assy	See Contrast table (2)	18	Earth Plate (MX)	AMR3432
9	Energy Star Label	AAX8022			
10	Blind Cushion	AEB1400			

(2) CONTRAST TABLE

PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-4304/ KUC	PDP-4314/ KUC
	8	Front Case Assy (F43C)	AMB2846	Not used
	8	Front Case Assy (F43S)	Not used	AMB2847
	16	Lead Cover (SF)	AMR3436	Not used
	16	Lead Cover (4G)	Not used	AMR3395

2.3.6 PANEL CHASSIS (43) ASSY (AWU1098)

Panel Chassis (43) Assy (AWU1098)

• Parts List

Mark No.	Description	Part No.
A	NSP 1..43 ADDRESS Assy	AWV2120
	NSP 2..43 ADDRESS Assy	AWZ6793
	NSP 1..43 SCAN FUKUGO Assy	AWV2023
	NSP 2..43 SCAN A Assy	AWZ6796
	NSP 2..43 SCAN B Assy	AWZ6797
	NSP 2..X CONNECTOR A Assy	AWZ6798
	NSP 2..X CONNECTOR B Assy	AWZ6799
	NSP Address Module (IC1-IC32)	AXF1124
	NSP Plasma Panel Assy (43")(V1)	AAV1250
B	NSP FPC (43XGA-X)	ADY1079
	NSP FPC (43XGA-Y)	ADY1080
	NSP Chassis Assy (43)	ANA1773
	PCB Spacer	AEC1944
	PCB Support	AEC1958
	Edge Card Spacer	AEC1998
	Rivet	AMR1066
	FC Spacer	AMR3370
C	NSP Adhesive	ZBA-KE3424S
	NSP Cleaner	ZLX-AP7
	NSP Tape	ZTA-8101-12
	NSP Double Faced Tape	ZTB-5015-18
	NSP Double Faced Tape	ZTB-5015-9
	NSP Tape	ZTC-POLYCA-11
	NSP Tape	ZTC-POLYCA-20
	NSP Tape	ZTC-900UL-15
	NSP Wiping Cloth	ZTX-MX100-13
D	NSP Film	ZTX-2102Y35-2R5
	NSP Film	ZTX-2102Y45-2R5
	NSP Film	ZTX-2102Y45-5
	NSP Silicone Rubber	ZTC-EM7KB0R85T-15W
	NSP Silicone Rubber	ZTX-HC50-15
	NSP Silicone Rubber	ZTX-HC20-15
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2.3.7 PDP SERVICE ASSY (AWU1109)

PDP SERVICE Assy (AWU1109)

• Parts List

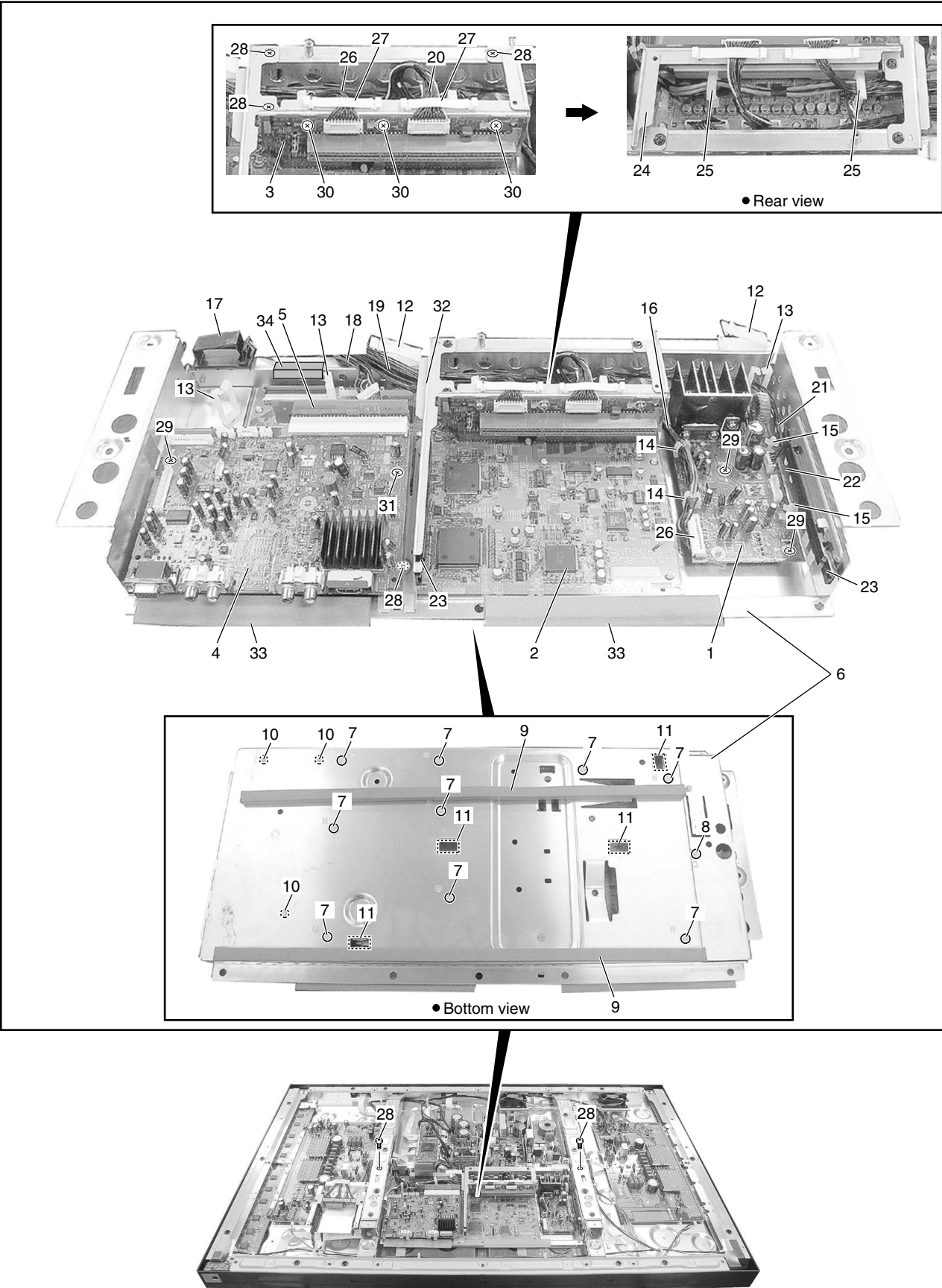
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
NSP	P. Chassis (43) Assy	AWU1098
NSP	Front Chassis H (43)	ANA1714
	F Chassis VL (43M)	ANA1762
	F Chassis VR (43M)	ANA1763
	Sub Frame L Assy (43M)	ANG2545
	Sub Frame R Assy (43M)	ANG2548
	Spacer	AEB1397
	Edging Saddle	AEC1737
	Wire Saddle	AEC1745
	Clamp	AEC1884
	PCB Support	AEC1938
	PCB Spacer	AEC1941
	PCB Spacer	AEC1947
	Locking Wire Saddle	AEC1948
	HL18	AEC1980
	Ferrite Clamp	AEC1986
	Locking Wire Saddle	AEC1992
	Panel Cushion H (43M)	AED1253
	Panel Cushion V (43M)	AED1254
	Y Drive Protection Sheet	AMR3346
	Front Spacer	AMR3369
	Caution Label	AAX3031
NSP	Drive Voltage Label	ARW1097
	Screw	ABZ30P100FZK
	Screw	AMZ30P060FZK
	Screw	AMZ30P080FMC
	Screw	APZ30P080FZK
	Screw	VBB30P080FNI
NSP	Front Case (434 SVC)	AMB2810
	Rear Case (43P)	ANE1612
NSP	Exchange Panel Sheet	ARM1250
	Pad (PP T-L)	AHA2315
	Pad (PP T-R)	AHA2316
	Center Pad (43)	AHA2336
	Pad (PP B-L)	AHA2343
	Pad (PP B-R)	AHA2344
	Carton (43PU)	AHD3193
	Upper Carton (434S)	AHD3204
	Protect Sheet	AHG1331

1234

2.4 MULTI BASE SECTION for PDP-5004, PDP-5014, PDP-4304 and PDP-4314

2.4.1 MULTI BASE SECTION

Note : This illustration is PDP-5004.



MULTI BASE SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	AUDIO AMP Assy	AWZ6848	19	10P Housing Wire (J113)	ADX2908
2	RGB Assy	AWZ6961	20	12P Housing Wire (J112)	ADX2892
3	VIDEO SLOT I/F Assy	AWZ6851			
4	AV I/O Assy	See Contrast table (2)	21	13P/6P Housing Wire (J104)	ADX2910
5	AV I/O I/F Assy	AWZ6859	22	COVER Assy	AWZ6858
			23	Guide Rail EX	AEC1994
6	Multi Base (CMX)	ANA1757	24	Slot Stay	ANG2608
7	PCB Holder	AEC1088	25	Wire Saddle	AEC1745
8	PCB Spacer	AEC1991			
9	Gasket C-M	ANK1737	26	11P Housing Wire (J111)	See Contrast table (2)
10	Locking Card Spacer	AEC1429	27	Flat Clamp	AEC1879
			28	Screw	AMZ30P060FZK
11	Ground Finger	ANG2468	29	Screw	PMB30P060FNI
12	Clamp	AEC1884	30	Screw	VBB30P080FNI
13	Wire Saddle	AEC1989			
14	Mini Clamp	AEC1971	31	Pin Grommet	AEC1015
15	Double Locking Spacer	AEC1988	32	Video Stay	ANG2607
			33	Gasket M-T 150	ANK1738
16	15P/16P Housing Wire (J106)	ADX3028	34	Shield Sheet	AEC2004
17	Cable Clamp	AEC1707			
18	10/11P Housing Wire (J110)	See Contrast table (2)			

(2) CONTRAST TABLE

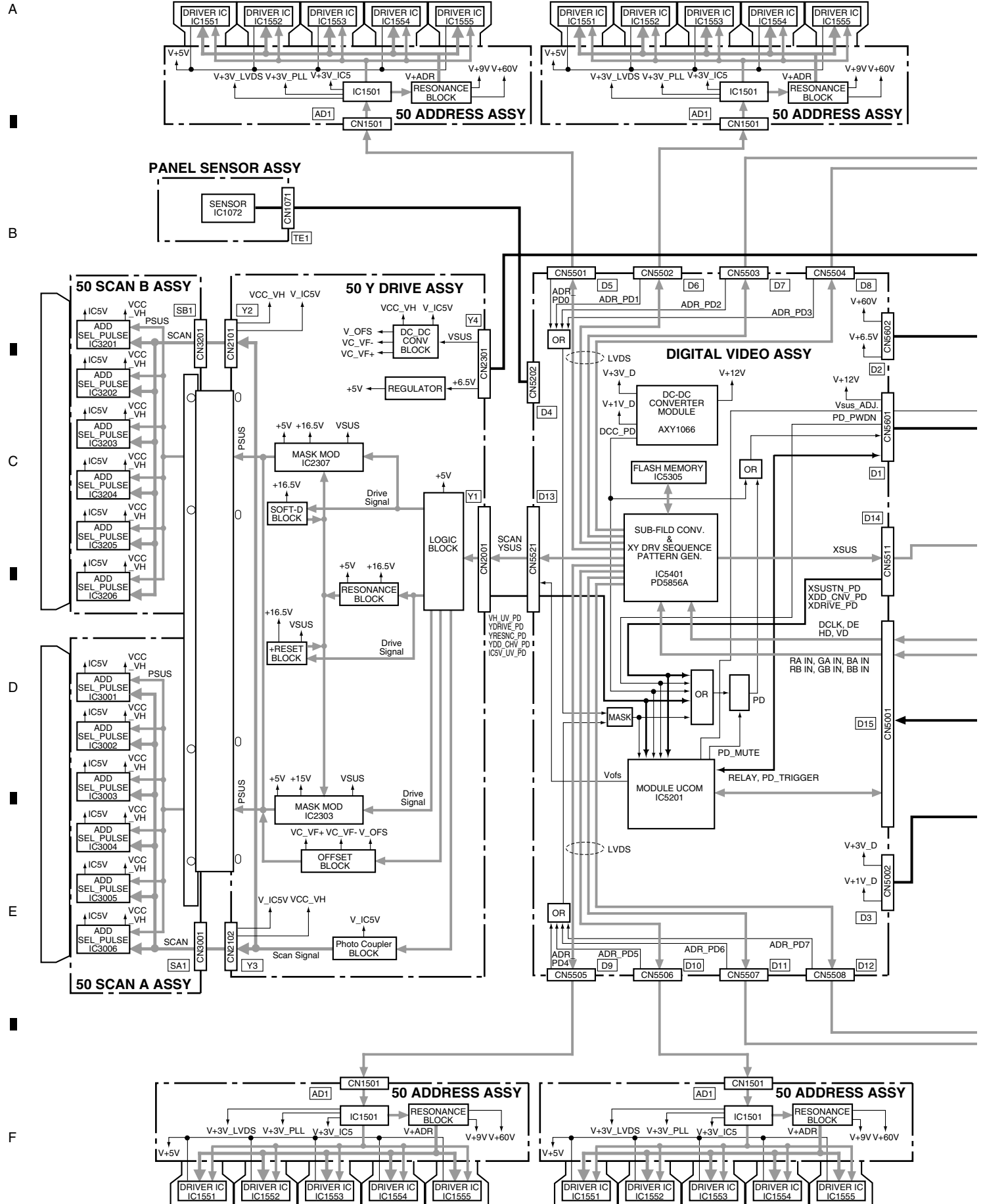
PDP-5004/KUC, PDP-5014/KUC, PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

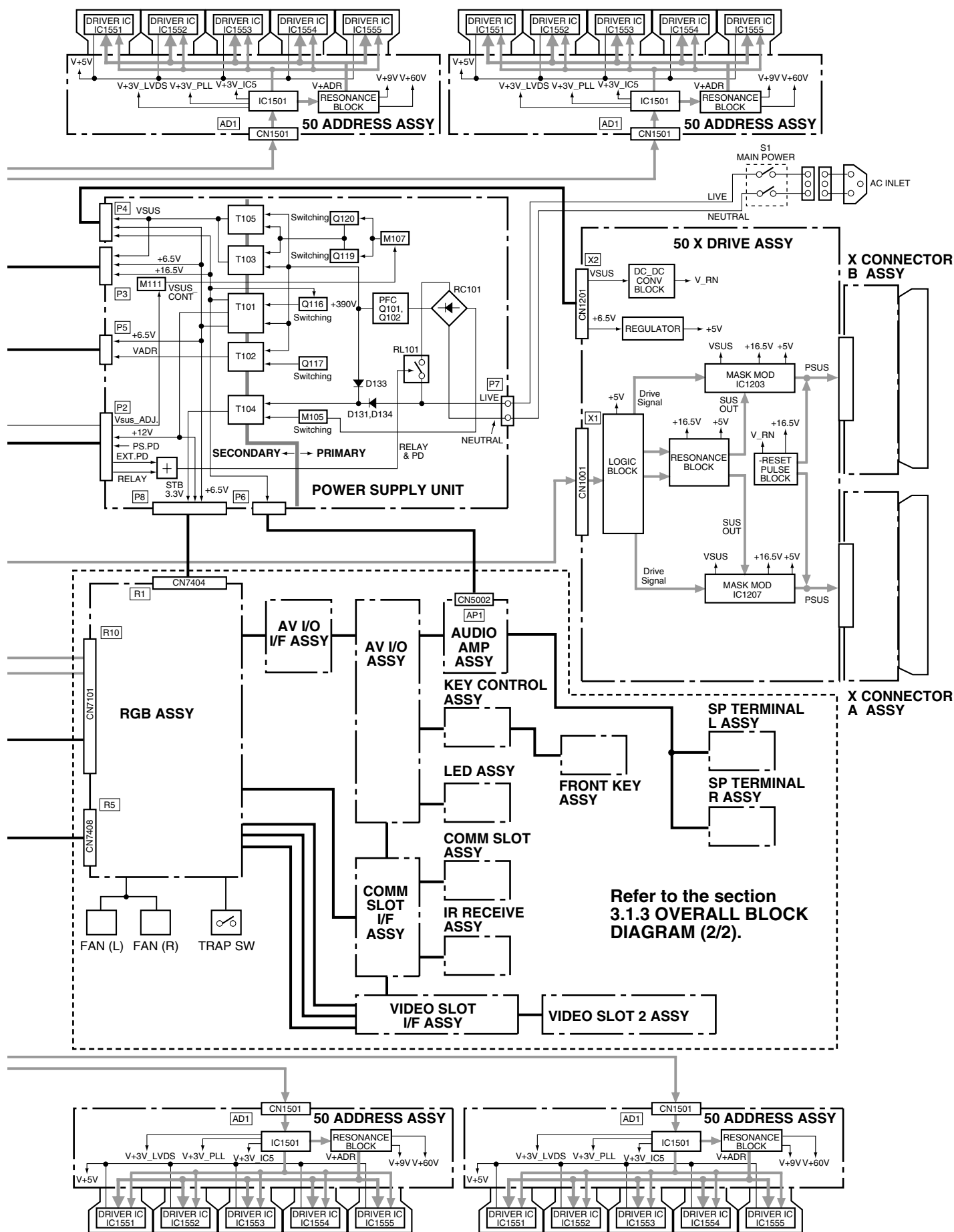
Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC	PDP-4304/ KUC	PDP-4314/ KUC
	4	AV I/O Assy	AWZ6967	AWZ6971	AWZ6967	AWZ6971
	18	10/11P Housing Wire (J110)	ADX2890	ADX2890	ADX2912	ADX2912
	26	11P Housing Wire (J111)	ADX2891	ADX2891	ADX2913	ADX2913

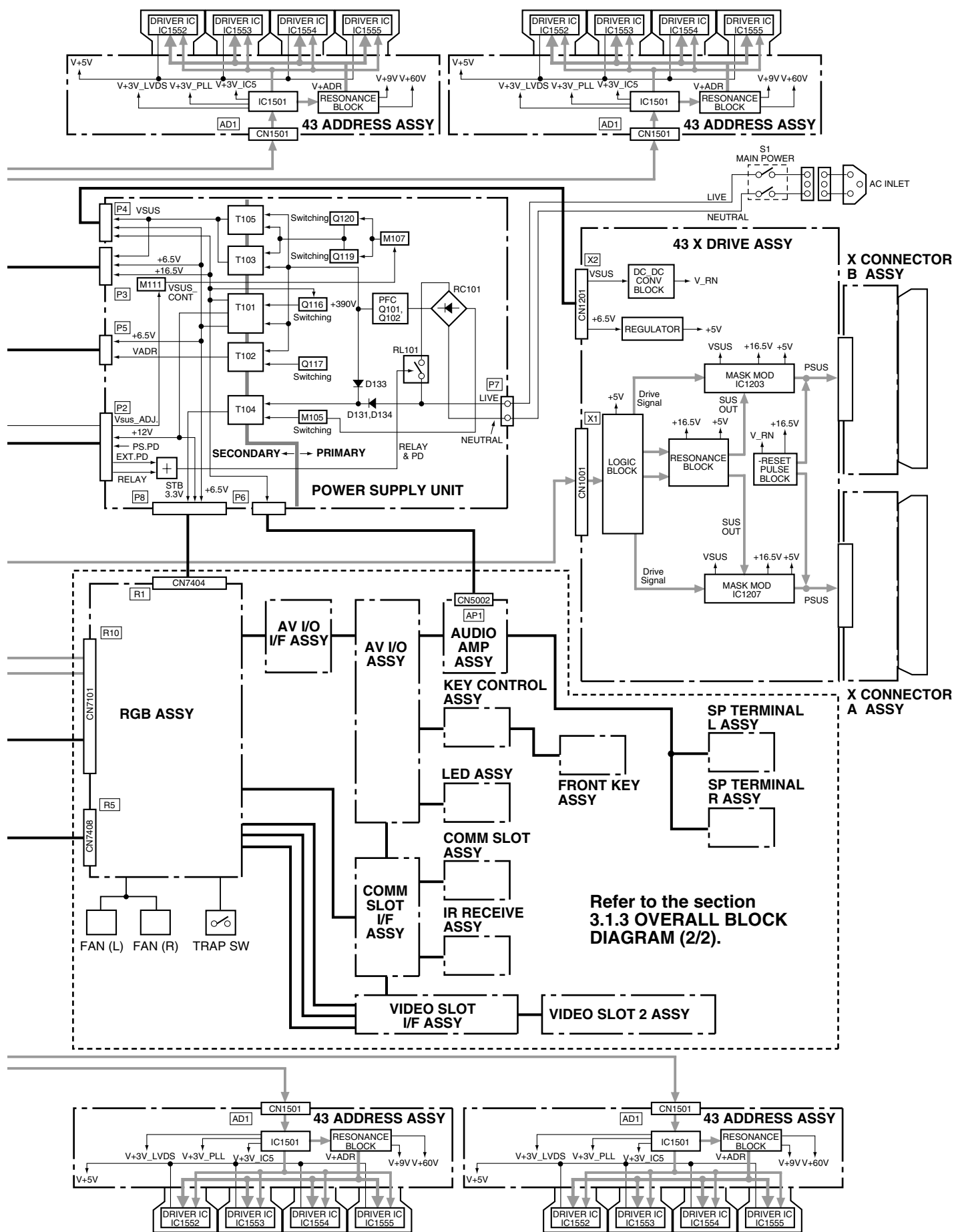
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

3.1.1 OVERALL BLOCK DIAGRAM (1/2) for PDP-5004 and PDP-5014 models







3.1.3 OVERALL BLOCK DIAGRAM (2/2) for PDP-5004, PDP-5014, PDP-4304 and PDP-4314 models

A

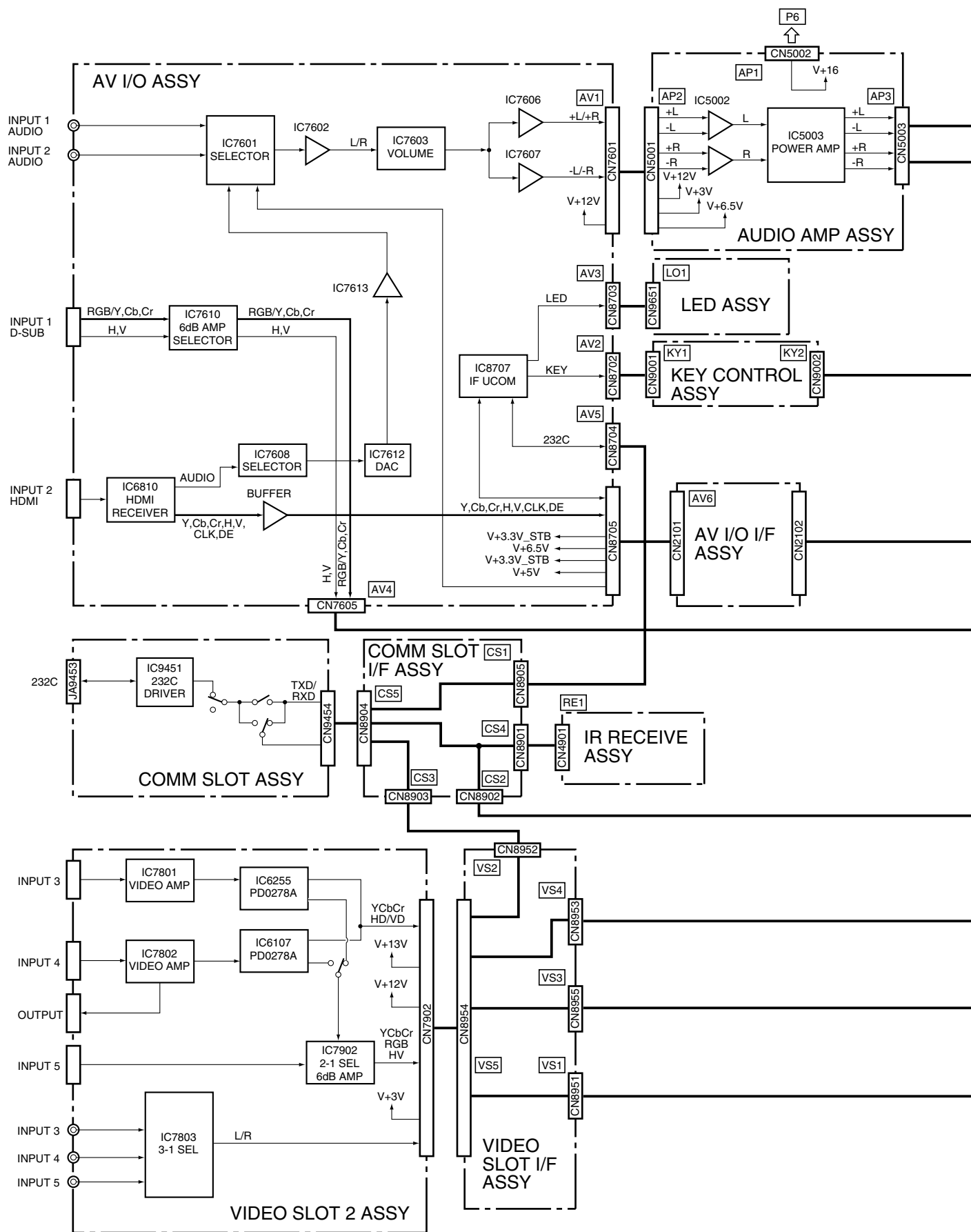
B

C

D

E

F

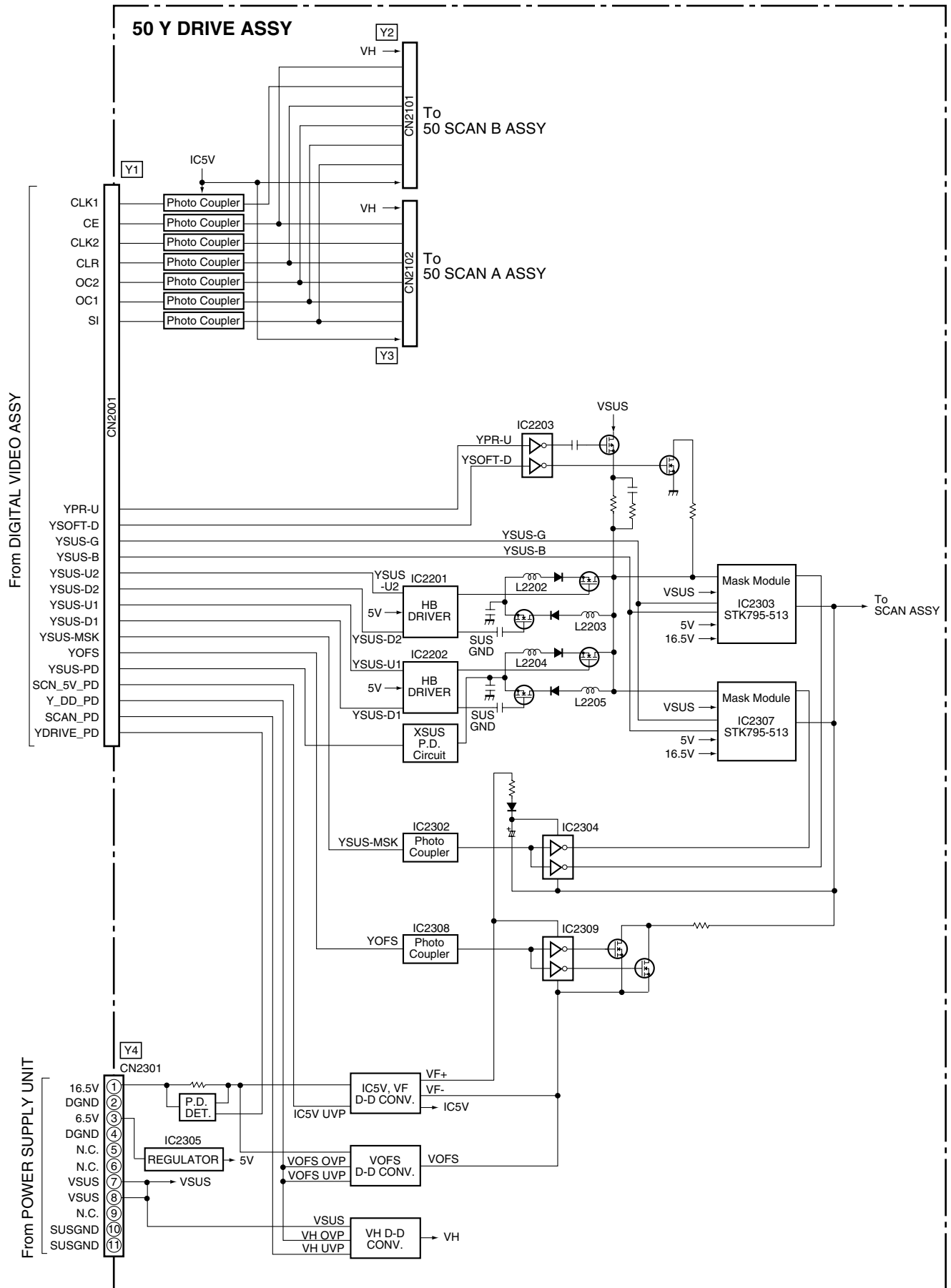




4



3.1.5 50Y DRIVE ASSY



3.1.6 43 Y DRIVE ASSY

A

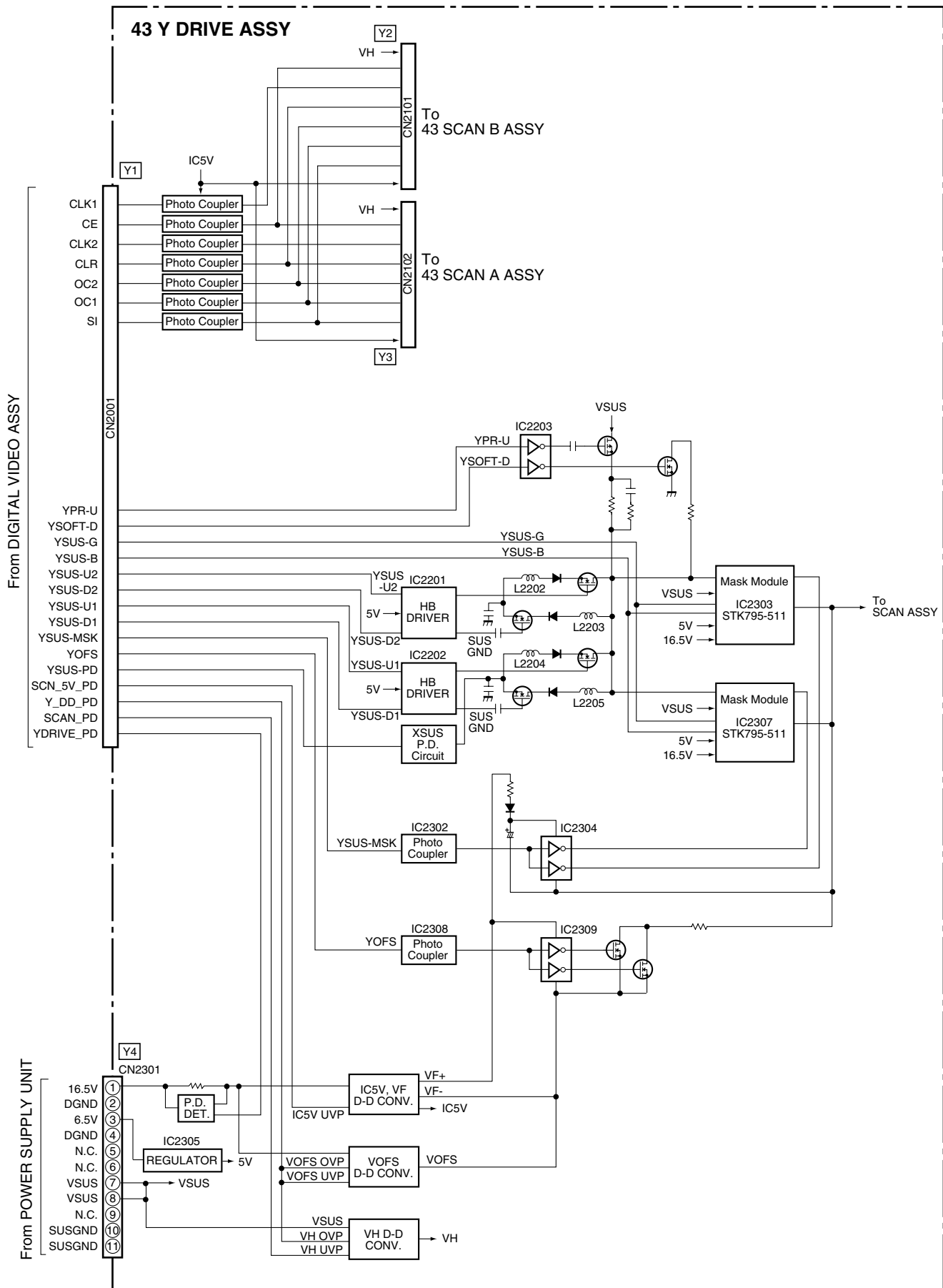
B

C

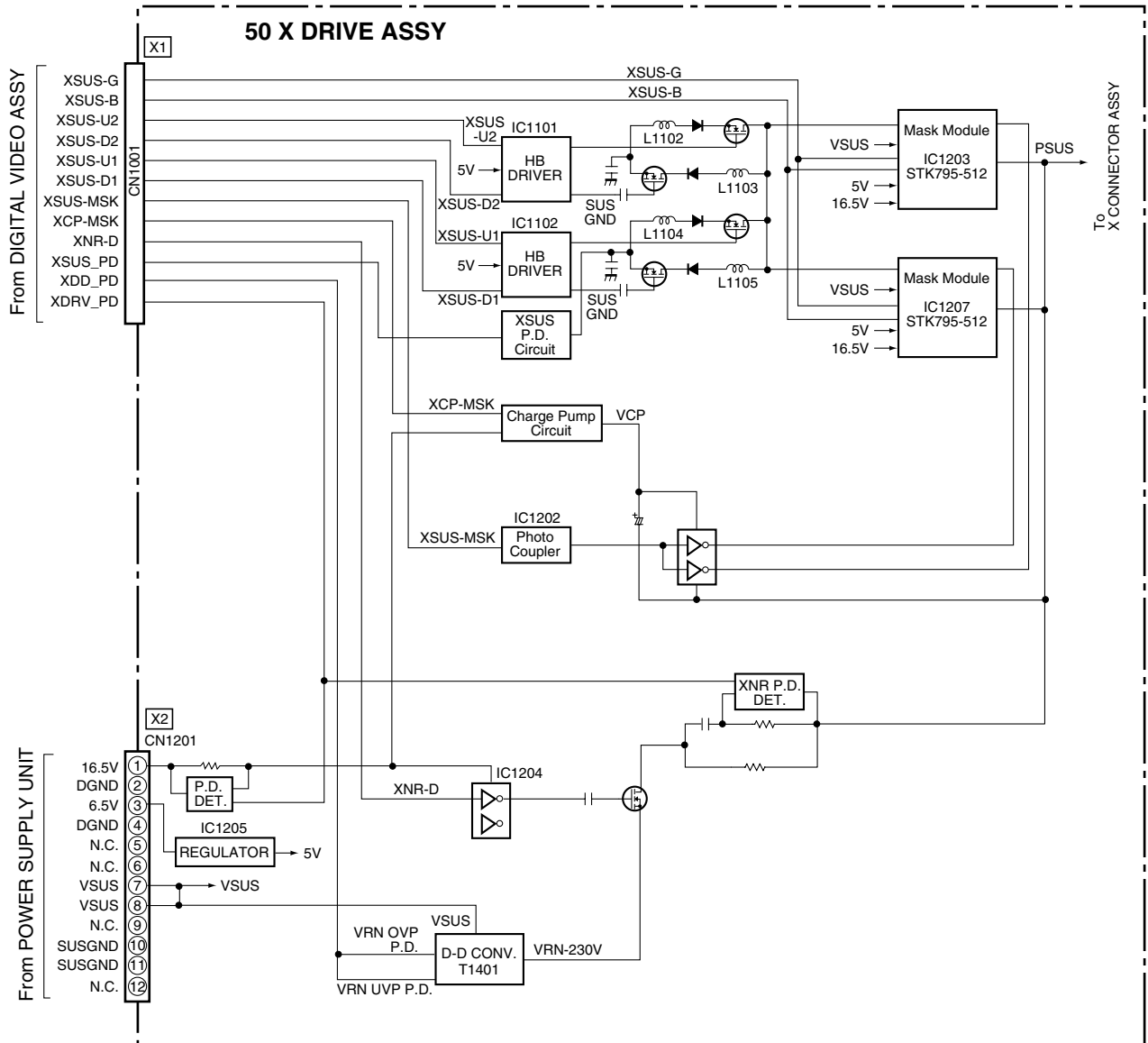
D

E

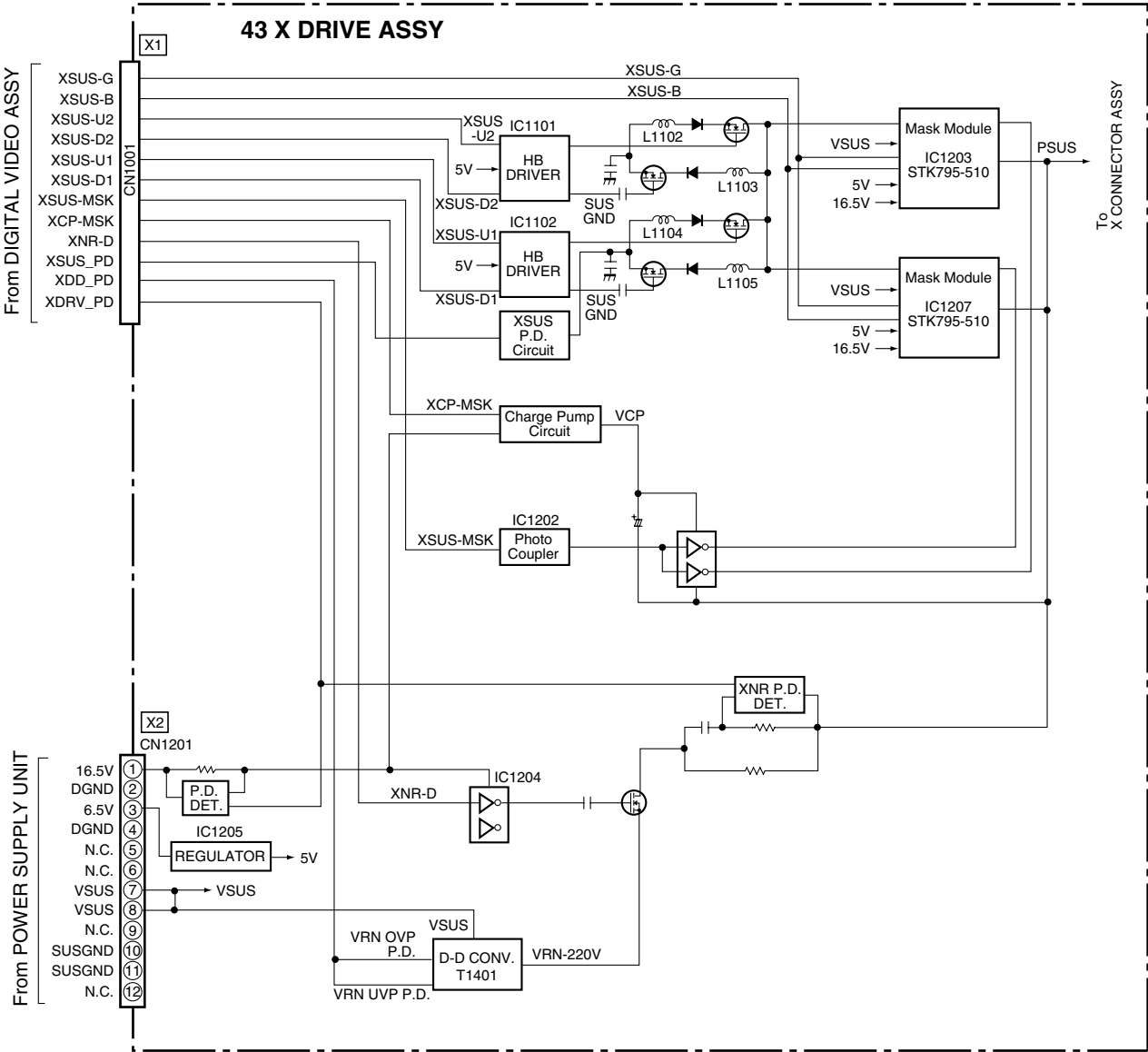
F



3.1.7 50 X DRIVE ASSY



3.1.8 43 X DRIVE ASSY

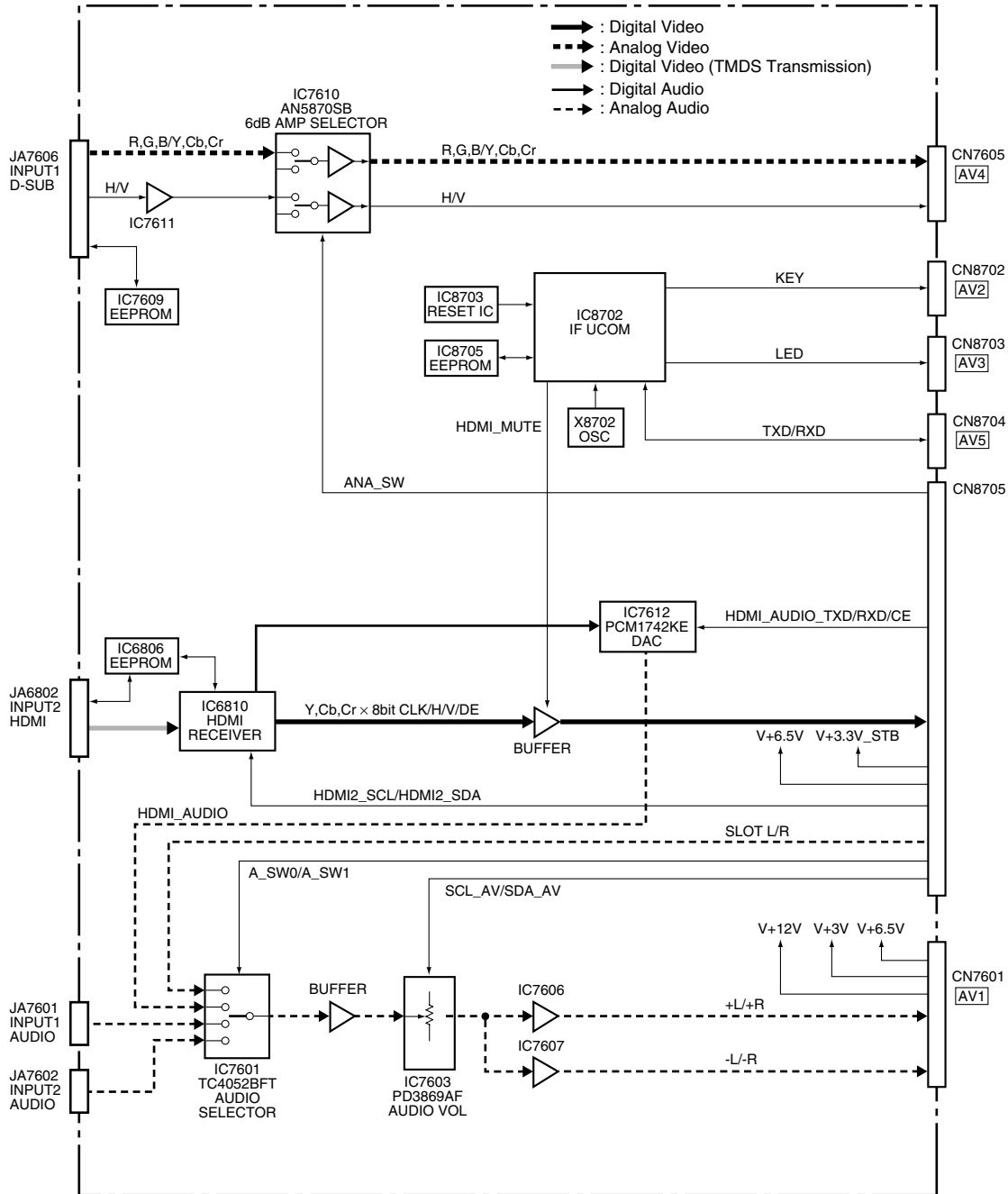


3.1.9 DIGITAL VIDEO ASSY



3.1.10 AV I/O ASSY

AV I/O ASSY

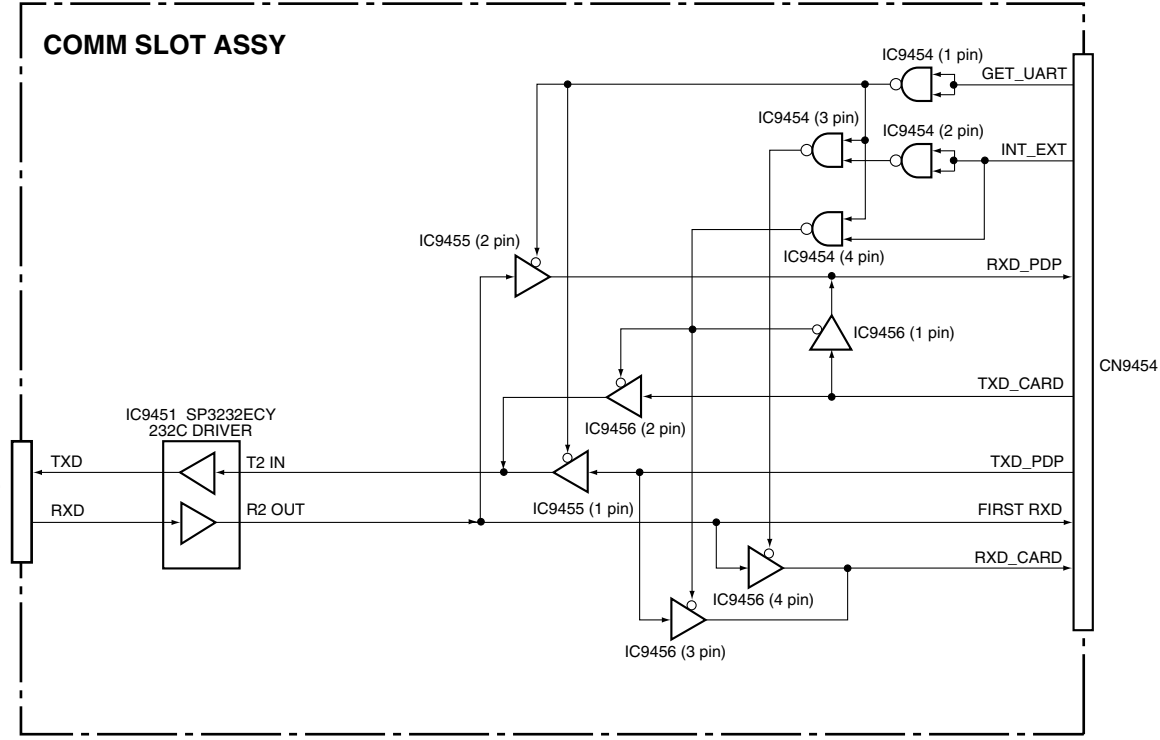
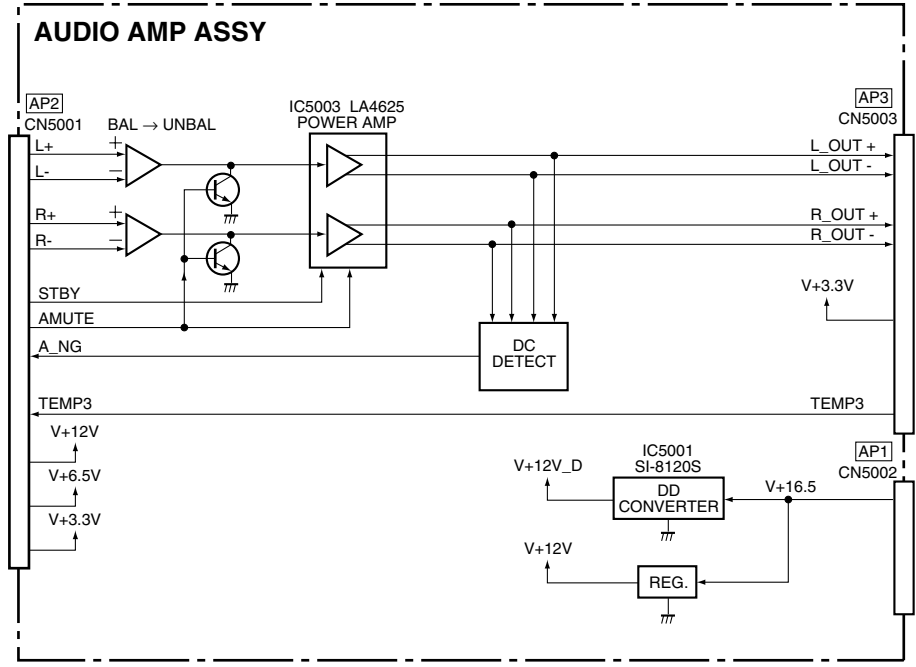


RGB ASSY

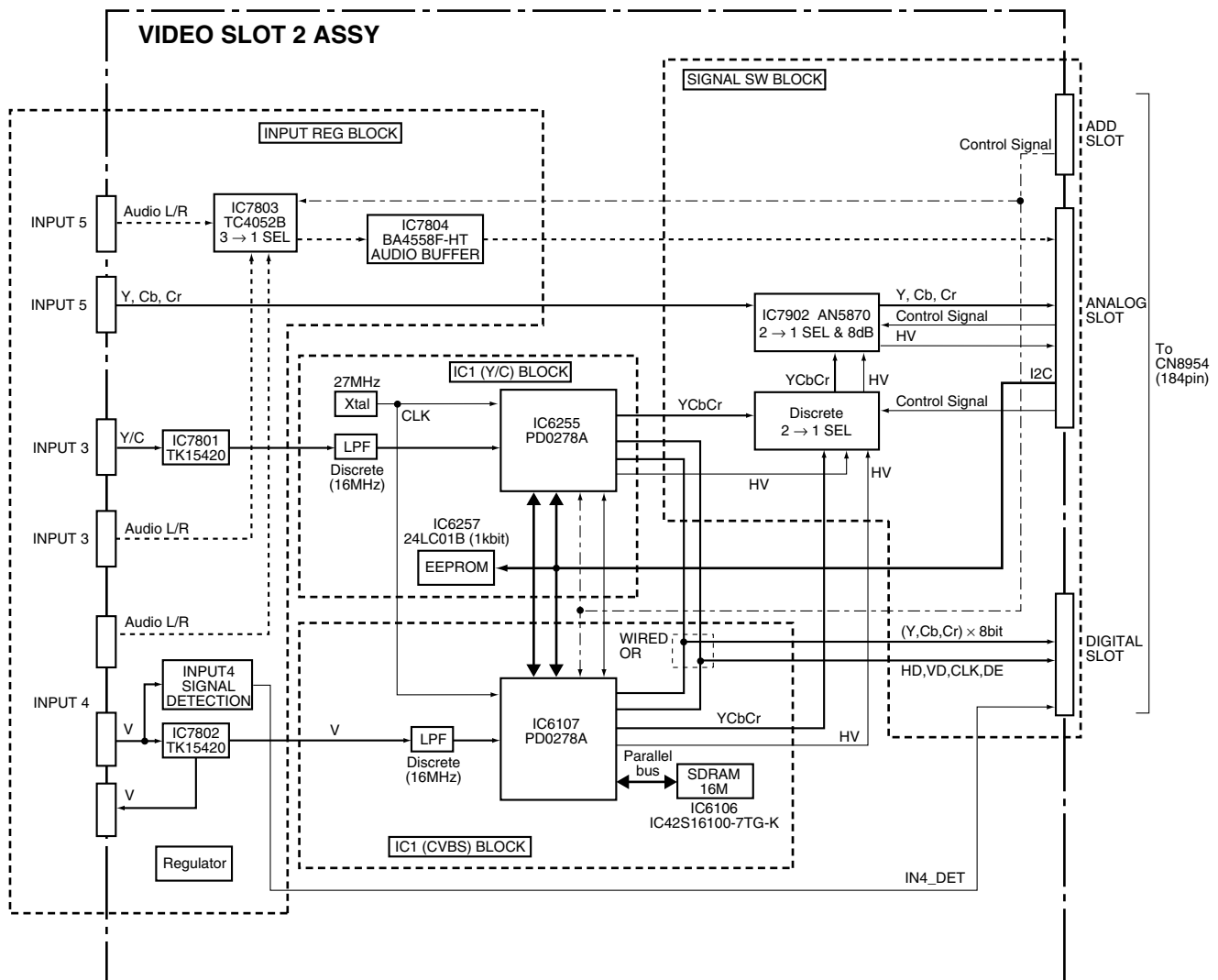


1 2 3 4

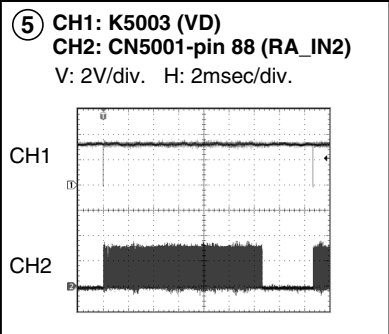
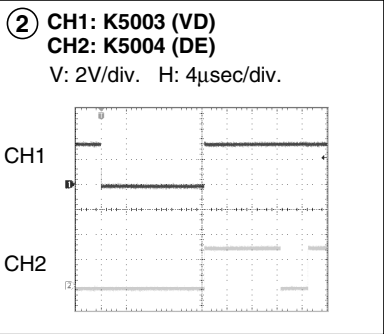
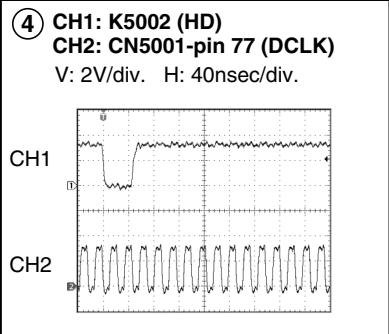
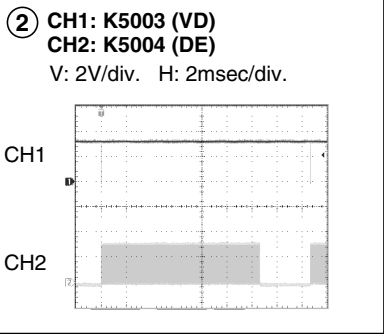
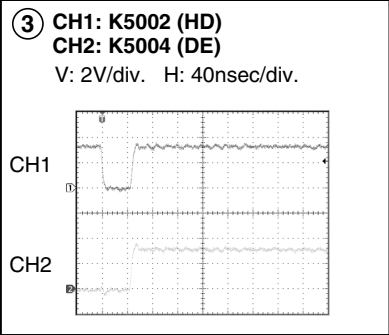
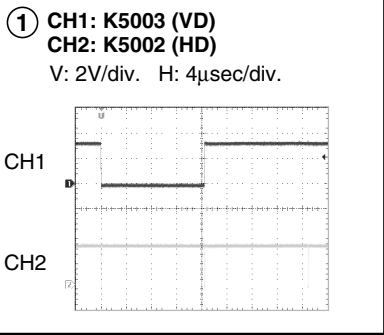
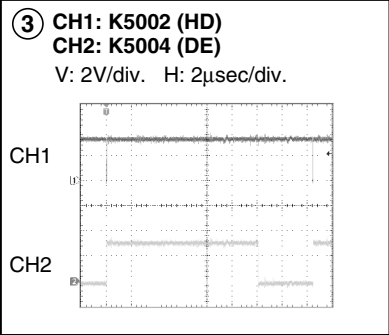
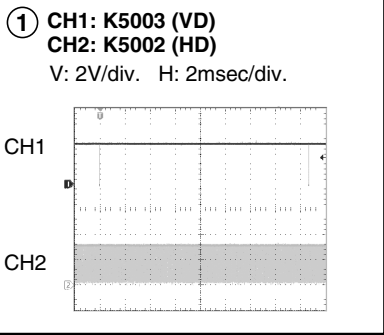
3.1.12 AUDIO AMP and COMM SLOT ASSYS



3.1.13 VIDEO SLOT 2 ASSY



DIGITAL VIDEO ASSY (4/6)
• DIGITAL I/F BLOCK



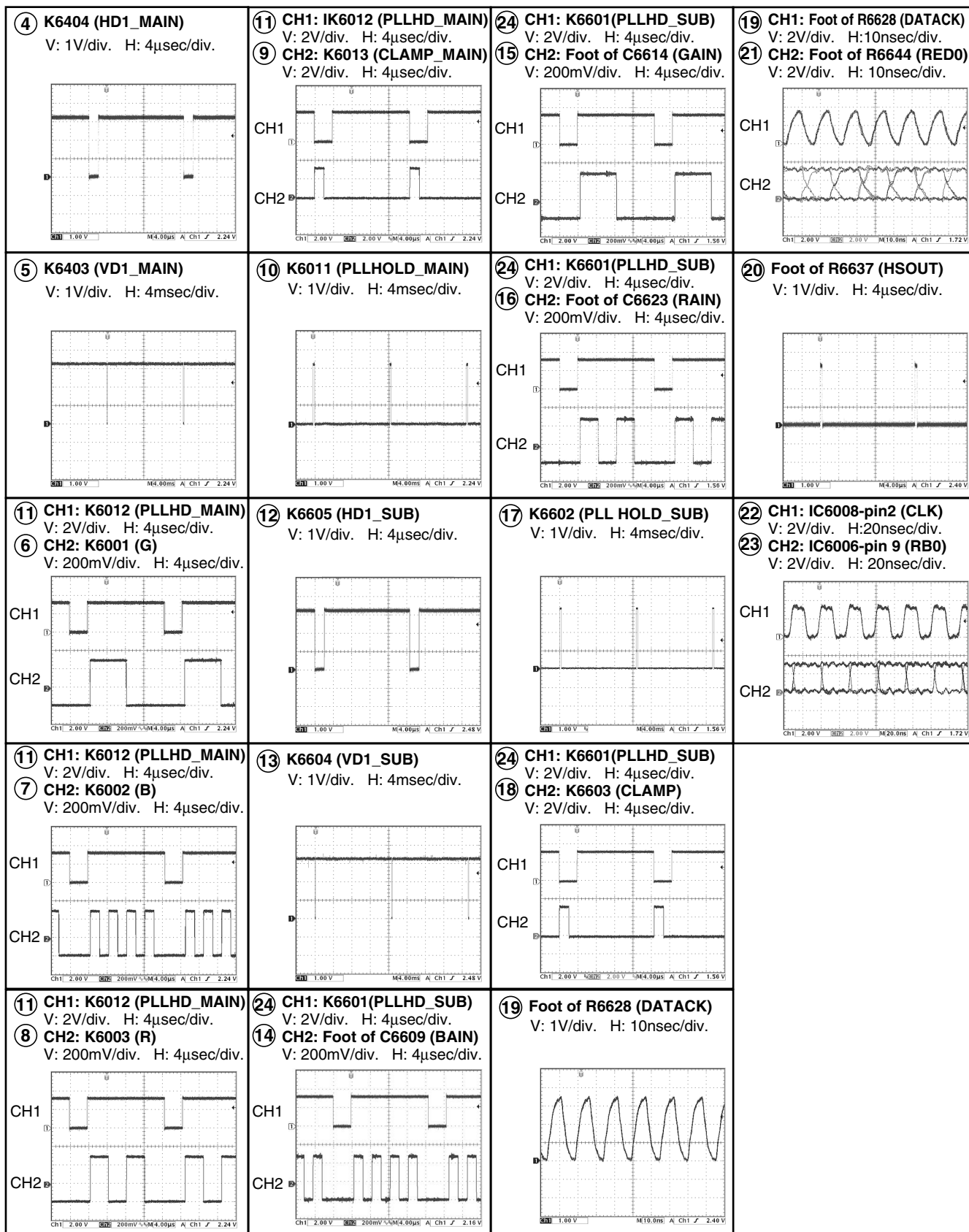
RGB ASSY (2/10, 3/10, 4/10)

MAUN AD BLOCK, MAIN LPF BLOCK, SUS LPF&AD BLOCK

Input: INPUT 1

Signal: RGB, XGA 60 Hz, Color-bar

(12) to (21), (24) : With two screens, a SUB screen chooses INPUT1 and observes it.

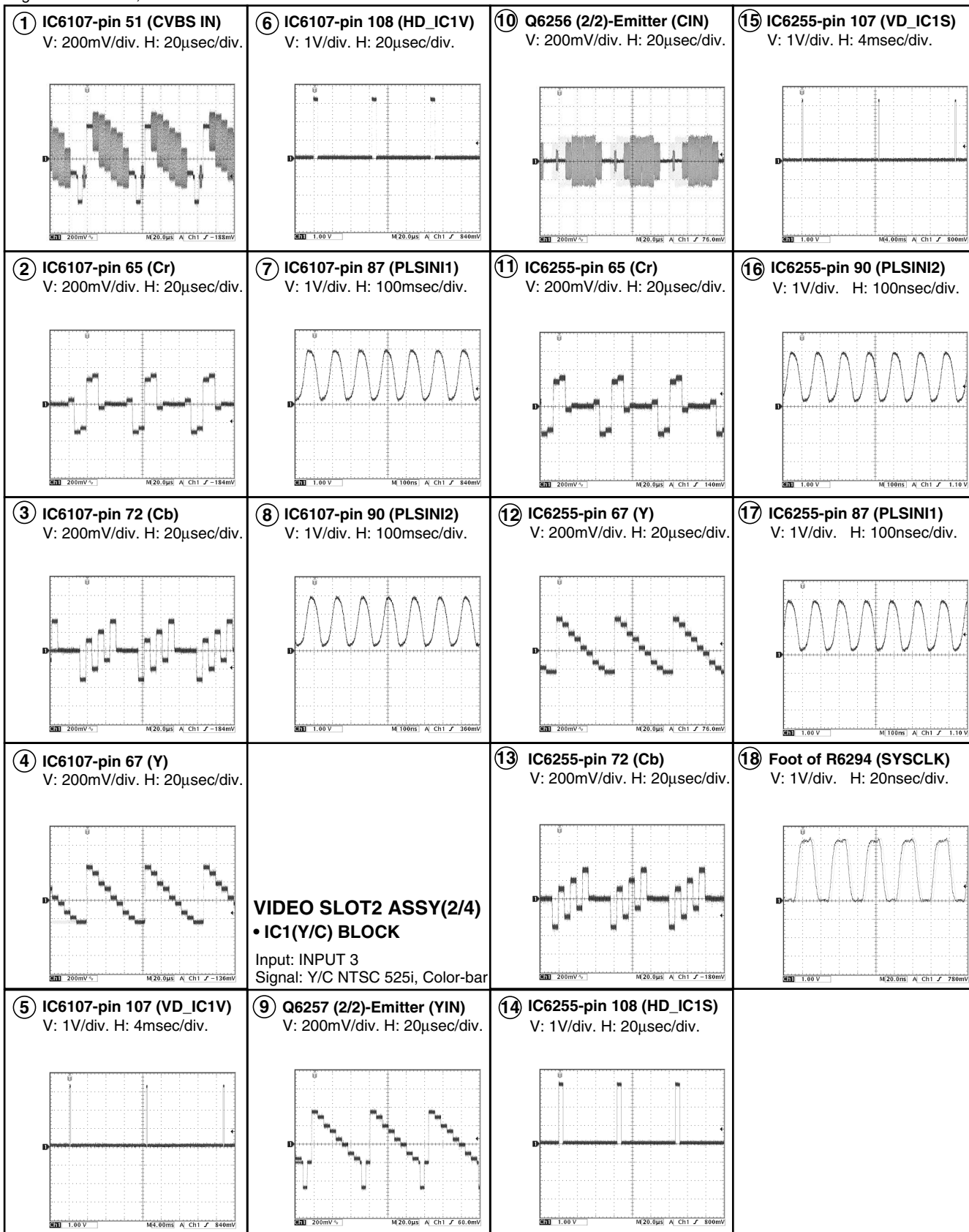


VIDEO SLOT 2 ASSY (1/4)

• IC1(CVBS) BLOCK

Input: INPUT 4

Signal: NTSC 525i, Color-bar



AV I/O ASSY (1/3)

• AV I/O BLOCK

• VIDEO

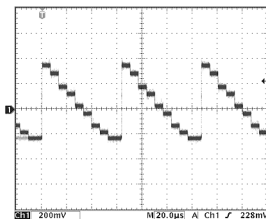
Input: INPUT 1

Signal: RGB, XGA 60 Hz, Color-bar

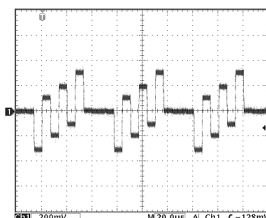
VIDEO SLOT2 ASSY (4/4)

• SIGNAL SW BLOCK

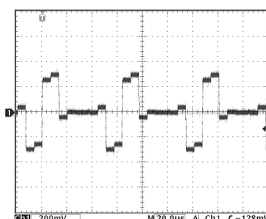
- ①9 (-) side of C7908 (G/Y)
V: 200mV/div. H: 20μsec/div.



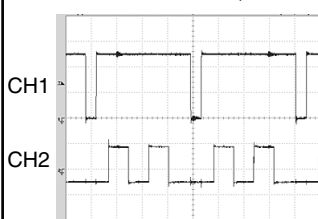
- ②0 (-) side of C7912 (B/Cb)
V: 200mV/div. H: 20μsec/div.



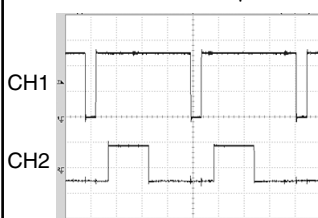
- ②1 (-) side of C7917 (R/Cr)
V: 200mV/div. H: 20μsec/div.



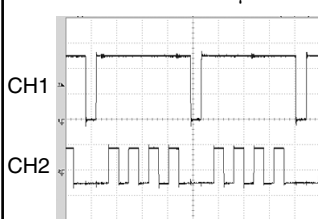
- ① CH1: CN7605-pin 10(HD_IO)
V: 2V/div. H: 5μsec/div.
② CH2: CN7605-pin 16 (R_IO)
V: 500mV/div. H: 5μsec/div.



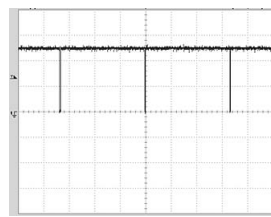
- ① CH1: CN7605-pin 10(HD_IO)
V: 2V/div. H: 5μsec/div.
③ CH2: CN7605-pin 14 (G_IO)
V: 500mV/div. H: 5μsec/div.



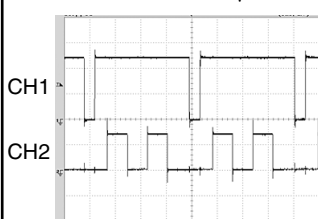
- ① CH1: CN7605-pin 10(HD_IO)
V: 2V/div. H: 5μsec/div.
④ CH2: CN7605-pin 12 (B_IO)
V: 500mV/div. H: 5μsec/div.



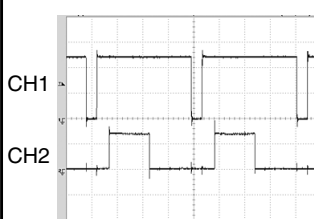
- ⑤ CN7605-pin 9 (VD_IO)
V: 2V/div. H: 5msec/div.



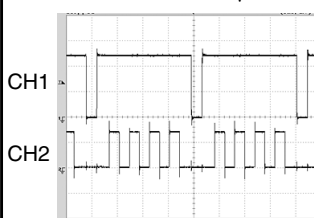
- ⑥ CH1: JA7606-pin 13 (HD)
V: 2V/div. H: 5μsec/div.
⑦ CH2: JA7606-pin 1 (R)
V: 500mV/div. H: 5μsec/div.



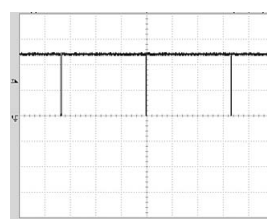
- ⑥ CH1: JA7606-pin 13 (HD)
V: 2V/div. H: 5μsec/div.
⑧ CH2: JA7606-pin 2 (G)
V: 500mV/div. H: 5μsec/div.



- ⑥ CH1: JA7606-pin 13 (HD)
V: 2V/div. H: 5μsec/div.
⑨ CH2: JA7606-pin 3 (B)
V: 500mV/div. H: 5μsec/div.



- ⑩ JA7606-pin 14 (VD)
V: 2V/div. H: 5msec/div.



AV I/O ASSY (1/3)

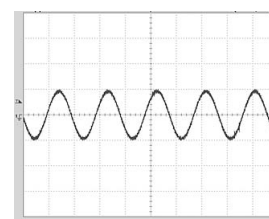
• AV I/O BLOCK

• AUDIO

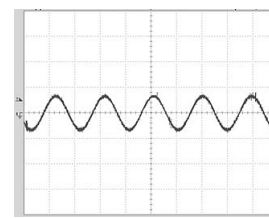
Input: INPUT 1

Signal: 200mVrms, 1 kHz input,
VOL MAX

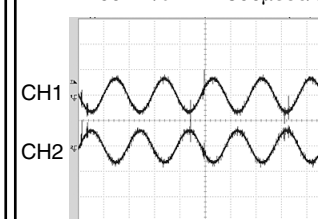
- ①1 IC7601-pin 12 (L-AUDIO)
V: 200mV/div. H: 500μsec/div.



- ①2 IC7603-pin 14 (L-AUDIO)
V: 200mV/div. H: 500μsec/div.



- ①3 CH1: CN7601-pin 14 (+L_OUT)
V: 200mV/div. H: 500μsec/div.
①4 CH2: CN7601-pin 13 (-L_OUT)
V: 200mV/div. H: 500μsec/div.



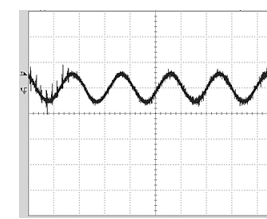
AUDIO AMP ASSY

• AUDIO

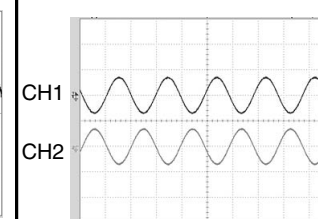
Input: INPUT 1

Signal: 200mVrms, 1 kHz input,
VOL MAX

- ① IC5003-pin 1 (L-AUDIO)
V: 50mV/div. H: 500μsec/div.



- ② CH1: CN5003-pin 9 (L-)
V: 2V/div. H: 500μsec/div.
③ CH2: CN5003-pin 8 (L+)
V: 2V/div. H: 500μsec/div.

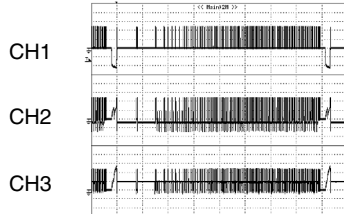


50 (43) X DRIVE ASSY, 50 (43) Y DRIVE ASSY and 50 (43) SCAN A ASSY

• 50 (43) X SUS BLOCK, 50 (43) Y LOGIC BLOCK, 50 (43) Y SUS BLOCK

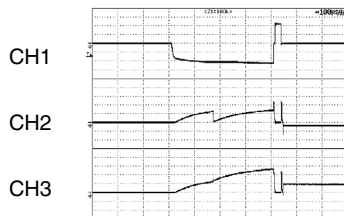
① Drive Output Waveform (1 field,color-bar)

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 (43) X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 (43) SCAN A ASSY)
V: 100V/div. H: 2msec/div.



② Reset Pulse

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 (43) X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 (43) SCAN A ASSY)
V: 100V/div. H: 100μsec/div.



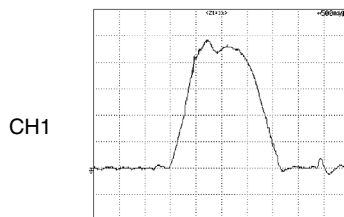
③ Sustain Pulse (1 sub-sub-field)

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 (43) X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 (43) SCAN A ASSY)
V: 50V/div. H: 5μsec/div.



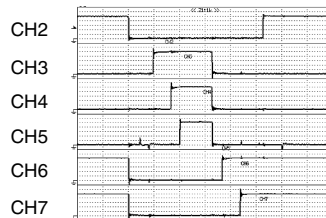
④ Sustain Waveform

CH1: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
V: 50V/div. H: 500nsec/div.



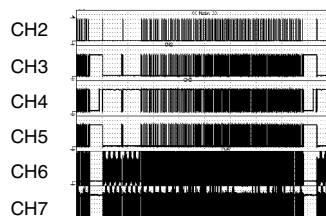
⑤ Control Signal (Sustain Waveform Gen.)

CH2: K2016 (YSUS-G) - K2010 (DGND)
CH3: K2025 (YSUS-U1) - K2010 (DGND)
CH4: K2022 (YSUS-U2) - K2010 (DGND)
CH5: K2026 (YSUS-B) - K2010 (DGND)
CH6: K2024 (YSUS-D2) - K2010 (DGND)
CH7: K2027 (YSUS-D1) - K2010 (DGND)
(50 (43) Y DRIVE ASSY)
V: 1V/div. H: 500nsec/div.



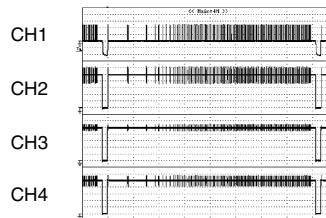
⑥ Scan Control Signal (1 field, color-bar)

CH2: K2006 (SI) - K2029 (DGND)
CH3: K2009 (OC1) - K2029 (DGND)
CH4: K2004 (OC2) - K2029 (DGND)
CH5: K2007 (CLR) - K2029 (DGND)
CH6: K2003 (CLK2) - K2029 (DGND)
CH7: K2008 (LE) - K2029 (DGND)
(50 (43) Y DRIVE ASSY)
V: 1V/div. H: 2msec/div.



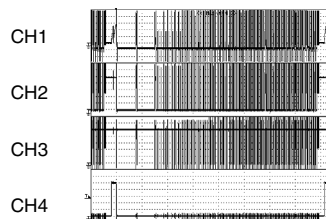
⑦ X Drive Pulse Control Signal (color-bar)

CH1: R1226 (XPSUS) - K2301 (SUSGND)
V: 100V/div. H: 2msec/div.
CH2: K1016 (XCP-MSK) - K1020 (DGND)
CH3: K1015 (XSUS-MSK) - K1020 (DGND)
CH4: K1014 (XNR-D) - K1020 (DGND)
V: 1V/div. H: 2msec/div.
(50 (43) X DRIVE ASSY)



⑧ Y Drive Pulse Control Signal (color-bar)

CH1: R2348 (YPSUS) - K2301 (SUSGND)
V: 50V/div. H: 2msec/div.
CH2: K2015 (YSUS-MSK) - K2010 (DGND)
CH3: K2017 (YSOFT-D) - K2010 (DGND)
CH4: K2023 (YPR-U) - K2010 (DGND)
V: 1V/div. H: 2msec/div.
(50 (43) Y DRIVE ASSY)



Note:

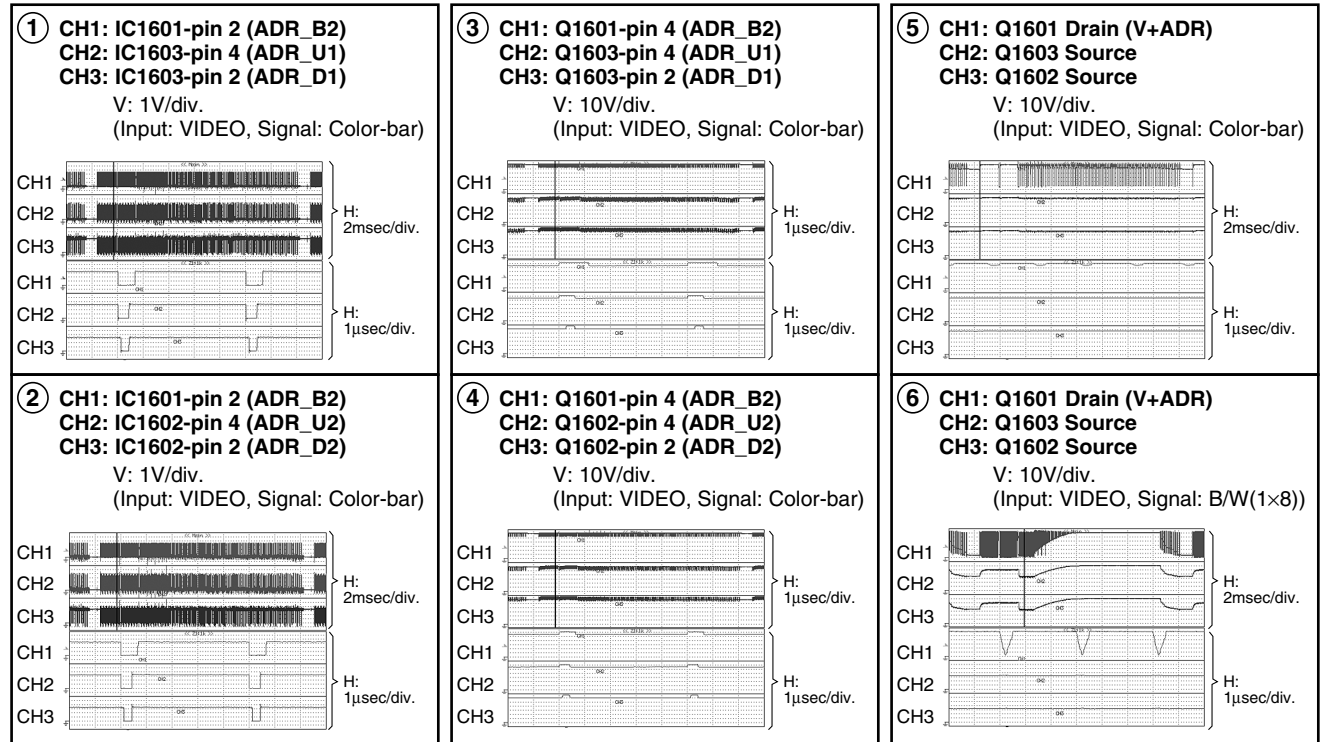
50 (43) *** Assy means
50 *** Assy or 43 *** Assy.

50 (43) ADDRESS ASSY

• ADR RESONANCE BLOCK (VIDEO)

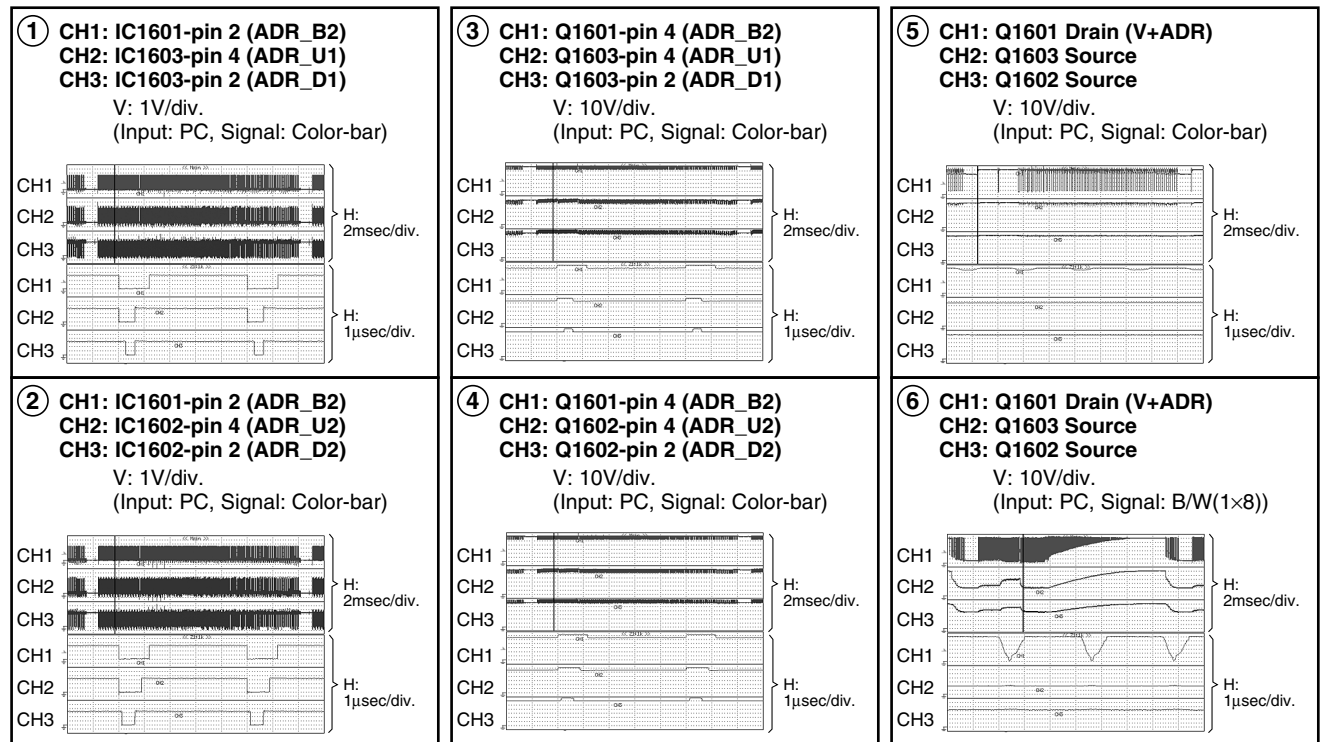
Note:

50 (43) *** Assy means
50 *** Assy or 43 *** Assy.



50 (43) ADDRESS ASSY

• ADR RESONANCE BLOCK (PC)



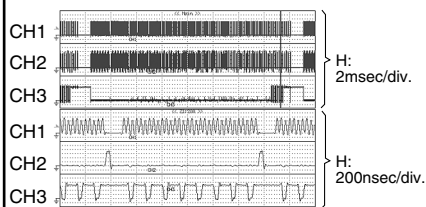
50 ADDRESS ASSY

• ADR LOGIC BLOCK

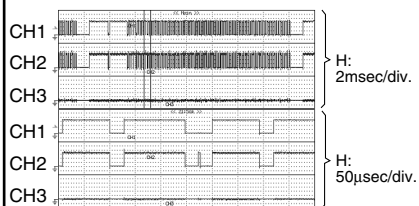
43 ADDRESS ASSY

• ADR LOGIC BLOCK

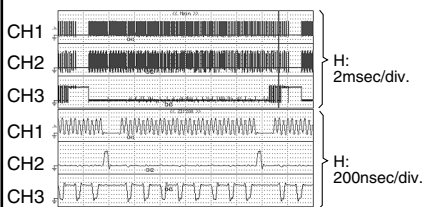
① CH1: IC1553-pin 18 (CLK input)
CH2: IC1553-pin 16 (LE input)
CH3: IC1553-pin 9 (DATA input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



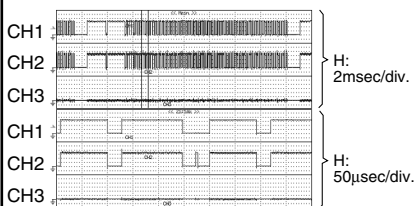
② CH1: IC1553-pin 23 (HBLK input)
CH2: IC1553-pin 19 (LBLK input)
CH3: IC1553-pin 25 (HZ input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



① CH1: IC1552-pin 18 (CLK input)
CH2: IC1552-pin 16 (LE input)
CH3: IC1552-pin 9 (DATA input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



② CH1: IC1552-pin 23 (HBLK input)
CH2: IC1552-pin 19 (LBLK input)
CH3: IC1552-pin 25 (HZ input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



3.3 VOLTAGES

• Voltages

CN5601 (D1)

No.	Signal Name	I/O	Signal Description	Voltages at NTSC Signal Input
1	+12V	I	+12V power input	+12VDC
2	+12V	I	+12V power input	+12VDC
3	GND_D	–	GND	
4	GND_D	–	GND	
5	PD	O	Power down signal	0VDC
6	VSUS_ADJ	O	VSUS adjustment signal	
7	PS_PD	I	Power-down detecting signal of POWER SUPPLY block	0VDC
8	RELAY	O	Relay control signal	+3.3VDC
9	DRF	O	Drive control signal	0VDC
10	AC_DET	I	Primary side power (AC) state output at panel side	+3.0VDC
11	PD_TRIGGER	I	Power down trigger	+3.3VDC

CN5602 (D2)

No.	Signal Name	I/O	Signal Description	Voltages at NTSC Signal Input
1	VADR	I	Address drive power (+61V) input	+61VDC
2	VADR	I	Address drive power (+61V) input	+61VDC
3	N.C		Not connected	
4	GND_ADR	–	GND	
5	GND_ADR	–	GND	
6	+6.5V	I	+6.5V power input	+6.8VDC
7	GND_D	–	GND	

RGB ASSY

POWER SUPPLY ASSY

R1 (CN7404)		Voltage (V)	P8	
No.	Name		Name	No.
1	V+16.5V	16.7	V+16.5V	1
2	GND	0	GND	2
3	V+12V	12.9	V+12V	3
4	V+12V	12.9	V+12V	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+6.5V	6.8	V+6.5V	7
8	V+6.5V	6.8	V+6.5V	8
9	GND	0	GND	9
10	GND	0	GND	10
11	V+3V_STB	3.3	V+3V_STB	11
12	GND	0	GND	12
13	AC_DET	2.7	AC_DET	13

RGB ASSY

VIDEO SLOT I/F ASSY

R4 (CN7407)		Voltage (V)	VS1 (CN8951)	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	V+13V	13.6	V+13V	3
4	V+13V	13.6	V+13V	4
5	V+12V	12.9	V+12V	5
6	V+12V	12.9	V+12V	6
7	GND	0	GND	7
8	V+3V_STB	3.3	V+3V_STB	8
9	GND	0	GND	9
10	V+3V_DD	3.3	V+3V_DD	10
11	V+3V_DD	3.3	V+3V_DD	11
12	GND	0	GND	12

RGB ASSY

AV I/O ASSY

R2 (CN6401)		Voltage (V)	AV4 (CN8705)	
No.	Name		Name	No.
1	VD_SLOT	0	VD_SLOT	1
2	HD_SLOT	0	HD_SLOT	2
3	GNDD	0	GNDD	3
4	B_SLOT	0	B_SLOT	4
5	GNDD	0	GNDD	5
6	G_SLOT	0	G_SLOT	6
7	GNDD	0	GNDD	7
8	R_SLOT	0	R_SLOT	8
9	VD_IO	0	VD_IO	9
10	HD_IO	5	HD_IO	10
R13 (CN6402)				
1	GNDD	0	GNDD	11
2	B_IO	0	B_IO	12
3	GNDD	0	GNDD	13
4	G_IO	0	G_IO	14
5	GNDD	0	GNDD	15
6	R_IO	0	R_IO	16

RGB ASSY

DIGITAL VIDEO ASSY

R5 (CN7408)		Voltage (V)	D3 (CN5002)	
No.	Name		Name	No.
1	V+1V_DD	1.4	V+1V_DD	1
2	V+1V_DD	1.4	V+1V_DD	2
3	V+1V_DD	1.4	V+1V_DD	3
4	GND	0	GND	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+3V_DD	3.3	V+3V_DD	7
8	V+3V_DD	3.3	V+3V_DD	8
9	GND	0	GND	9
10	GND	0	GND	10
11	NC			
12	NC			

RGB ASSY

COMM SLOT I/F ASSY

R3 (CN7406)		Voltage (V)	CS2 (CN8902)	
No.	Name		Name	No.
1	V+5V_STB	5.1	V+5V_STB	1
2	GND	0	GND	2
3	V+3V_STB	3.3	V+3V_STB	3
4	CYOB11	3.3	CYOB11	4
5	CYOB12	0	CYOB12	5
6	CYOB13	0	CYOB13	6
7	GND	0	GND	7
8	SR_OUT	4.9	SR_OUT	8
9	SLOT_ST_COM	3.3	SLOT_ST_COM	9
10	V+6V	6.8	V+6V	10
11	NC			

RGB ASSY

FAN (L), (R)

R8 (CN7402)		Voltage (V)	FAN (L)	
No.	Name		Name	No.
1	FAN_12V	0	FAN_12V	1
2	FAN_NG	3.2	FAN_NG	2
3	GND	0	GND	3
			FAN (R)	
4	FAN_12V	0	FAN_12V	1
5	FAN_NG	3.2	FAN_NG	2
6	GND	0	GND	3
7	NC			

RGB ASSY

TRAP SW (ASG1089)

R6 (CN7204)		Voltage (V)	TRAP SW (CN5801)	
No.	Name		Name	No.
1	TRAP_SW	3.3	TRAP_SW	1
2	NC	0	NC	2
3	3.3V	3.3	3.3V	3

RGB ASSY

R9 (CN5701)				
No.	Name			
AV I/O IF ASSY		AV I/O ASSY		
CN2102, AV6 (CN2101)		Voltage (V)	CN8705	
No.	Name		Name	No.
1	N.C.	0	N.C.	101
2	N.C.	0	N.C.	102
3	A_R_SLOT	6	A_R_SLOT	103
4	GND	0	GND	104
5	A_L_SLOT	6	A_L_SLOT	105
6	GND	0	GND	106
7	V+12V	12.9	V+12V	107
8	GND	0	GND	108
9	1N1_HD	4.4	1N1_HD	109
10	1N1_VD	0	1N1_VD	110
11	WE_ROM_B	0	WE_ROM_B	111
12	KEY	3.3	KEY	112
13	IO_YOBI2	3.2	IO_YOBI2	113
14	SR_OUT	5	SR_OUT	114
15	RXD_IF	3.3	RXD_IF	115
16	CLK_IF	3.3	CLK_IF	116
17	RXD_WR	3.3	RXD_WR	117
18	REQ_IF	0	REQ_IF	118
19	RST_IF	0	RST_IF	119
20	IF_CE	3.2	IF_CE	120
21	HOT_P1	0	HOT_P1	121
22	HDMI2_SDA	0	HDMI2_SDA	122
23	HDMI_INT1	3.2	HDMI_INT1	123
24	SCL_AV	3.3	SCL_AV	124
25	HDMI_AUDIO_CLK	3.2	HDMI_AUDIO_CLK	125
26	D_AUDIO_SEL	3.3	D_AUDIO_SEL	126
27	CEC2	0	CEC2	127
28	GND	0	GND	128
29	HD_DVI	0	HD_DVI	129
30	DE_DVI	0	DE_DVI	130
31	GND	0	GND	131
32	RB_DVI7	0/3.3	RB_DVI7	132
33	RB_DVI6	0/3.3	RB_DVI6	133
34	RB_DVI4	0/3.3	RB_DVI4	134
35	RB_DVI2	0/3.3	RB_DVI2	135
36	RB_DVI0	0/3.3	RB_DVI0	136
37	GB_DVI6	0/3.3	GB_DVI6	137
38	GB_DVI4	0/3.3	GB_DVI4	138
39	GB_DVI2	0/3.3	GB_DVI2	139
40	GB_DVI0	0/3.3	GB_DVI0	140
41	BB_DVI6	0/3.3	BB_DVI6	141
42	BB_DVI4	0/3.3	BB_DVI4	142
43	BB_DVI2	0/3.3	BB_DVI2	143
44	BB_DVI0	0/3.3	BB_DVI0	144
45	RA_DVI7	0/3.3	RA_DVI7	145
46	RA_DVI5	0/3.3	RA_DVI5	146
47	RA_DVI3	0/3.3	RA_DVI3	147
48	RA_DVI1	0/3.3	RA_DVI1	148
49	GND	0	GND	149
52	GA_DVI7	0/3.3	GA_DVI7	152
53	GA_DVI5	0/3.3	GA_DVI5	153
54	GA_DVI3	0/3.3	GA_DVI3	154
55	GA_DVI1	0/3.3	GA_DVI1	155
56	BA_DVI7	0/3.3	BA_DVI7	156

RGB ASSY

R9 (CN5701)				
No.	Name			
AV I/O IF ASSY		AV I/O ASSY		
CN2102, AV6 (CN2101)		Voltage (V)	CN8705	
No.	Name		Name	No.
57	BA_DVI5	0/3.3	BA_DVI5	157
58	BA_DVI3	0/3.3	BA_DVI3	158
59	GND	0	GND	159
60	V+5V_A2	5	V+5V_A2	160
61	N.C.	0	N.C.	161
62	N.C.	0	N.C.	162
101	N.C.	0	N.C.	1
102	N.C.	0	N.C.	2
103	A_MUTE	0	A_MUTE	3
104	TEMP3	0 - 3.3	TEMP3	4
105	V+6V	6.8	V+6V	5
106	GND	0	GND	6
107	V+3V_A1	3.3	V+3V_A1	7
108	GND	0	GND	8
109	V+3V_UCOM	3.3	V+3V_UCOM	9
110	GND	0	GND	10
111	V+3VSTB	3.3	V+3VSTB	11
112	IO_YOBI1	0	IO_YOBI1	12
113	PN2	0	PN2	13
114	ACTIVE	3.2	ACTIVE	14
115	TXD_IF	3.3	TXD_IF	15
116	TXD_WR	3.3	TXD_WR	16
117	AC_DET	2.6	AC_DET	17
118	IF_BUSY	0	IF_BUSY	18
119	RESET	3.3	RESET	19
120	HDMI_AUDIO_CE	3.3	HDMI_AUDIO_CE	20
121	HOT_P2	3.3	HOT_P2	21
122	HDMI2_SCL	3.3	HDMI2_SCL	22
123	SDA_AV	3.2	SDA_AV	23
124	HDMI_INT2	3.2	HDMI_INT2	24
125	HDMI_AUDIO_TXD	3.3	HDMI_AUDIO_TXD	25
126	CEC1	0	CEC1	26
127	RESETX1	3.3	RESETX1	27
128	VD_DVI	0	VD_DVI	28
129	GND	0	GND	29
130	CLK_DVI	0	CLK_DVI	30
131	GND	0	GND	31
132	GND	0	GND	32
133	RB_DVI5	0/3.3	RB_DVI5	33
134	RB_DVI3	0/3.3	RB_DVI3	34
135	RB_DVI1	0/3.3	RB_DVI1	35
136	GB_DVI7	0/3.3	GB_DVI7	36
137	GB_DVI5	0/3.3	GB_DVI5	37
138	GB_DVI3	0/3.3	GB_DVI3	38
139	GB_DVI1	0/3.3	GB_DVI1	39
140	GND	0	GND	40
141	BB_DVI6	0/3.3	BB_DVI6	41
142	BB_DVI4	0/3.3	BB_DVI4	42
143	BB_DVI2	0/3.3	BB_DVI2	43
144	BB_DVI0	0/3.3	BB_DVI0	44
145	RA_DVI6	0/3.3	RA_DVI6	45
146	RA_DVI4	0/3.3	RA_DVI4	46
147	RA_DVI2	0/3.3	RA_DVI2	47
148	RA_DVI0	0/3.3	RA_DVI0	48

RGB ASSY

R9 (CN5701)			
No.	Name		
AV I/O IF ASSY		AV I/O ASSY	
CN2102, AV6 (CN2101)		Voltage (V)	CN8705
No.	Name		No.
149	GND	0	GND 49
152	GA_DVI6	0/3.3	GA_DVI6 52
153	GA_DVI4	0/3.3	GA_DVI4 53
154	GA_DVI2	0/3.3	GA_DVI2 54
155	GA_DVI0	0/3.3	GA_DVI0 55
156	BA_DVI6	0/3.3	BA_DVI6 56
157	BA_DVI4	0/3.3	BA_DVI4 57
158	BA_DVI2	0/3.3	BA_DVI2 58
159	BA_DVI1	0/3.3	BA_DVI1 59
160	BA_DVI0	0/3.3	BA_DVI0 60
161	NC	0	NC 61
162	NC	0	NC 62

RGB ASSY

VIDEO SLOT I/F ASSY

R11 (CN7410)		Voltage (V)	VS3 (CN8955)	
No.	Name		Name	No.
38	GND	0	GND	38
39	GND	0	GND	39
40	DSUBV	0	DSUBV	40
41	GND	0	GND	41
42	GND	0	GND	42
43	IN5_VD	3.3	IN5_VD	43
44	GND	0	GND	44
45	GND	0	GND	45
46	HYOUJI_X	0	HYOUJI_X	46
47	VYOB14	0	VYOB14	47
48	VYOB15	0	VYOB15	48
49	VYOB16	0	VYOB16	49
50	WE_ROM_B	0	WE_ROM_B	50

RGB ASSY

VIDEO SLOT I/F ASSY

R11 (CN7410)		Voltage (V)	VS3 (CN8955)	
No.	Name		Name	No.
1	GND	0	GND	1
2	KEY	3.3	KEY	2
3	EMGREQ1_V	0	EMGREQ1_V	3
4	EMGREQ2_V	0	EMGREQ2_V	4
5	IC1V_OE	3.3	IC1V_OE	5
6	RESETX1	3.3	RESETX1	6
7	GND	0	GND	7
8	SD_SEL	3.3	SD_SEL	8
9	FNC2	0	FNC2	9
10	FNC3	0	FNC3	10
11	SOUND1	3.3	SOUND1	11
12	GND	0	GND	12
13	DSUBR	3.8	DSUBR	13
14	GND	0	GND	14
15	DSUBG	3.8	DSUBG	15
16	GND	0	GND	16
17	DSUBB	3.8	DSUBB	17
18	GND	0	GND	18
19	GND	0	GND	19
20	IN5_HD	0	IN5_HD	20
21	GND	0	GND	21
22	SOUSA_X	3.3	SOUSA_X	22
23	VYOB11	0	VYOB11	23
24	VYOB12	0	VYOB12	24
25	DSUBSW_DET	3.3	DSUBSW_DET	25
26	GND	0	GND	26
27	GND	0	GND	27
28	GND	0	GND	28
29	EMGREQ1_S	0	EMGREQ1_S	29
30	EMGREQ2_S	0	EMGREQ2_S	30
31	IC1S_OE	0	IC1S_OE	31
32	SLOT_ST3	0.4	SLOT_ST3	32
33	M_CHOICE	0	M_CHOICE	33
34	SOUND2	0	SOUND2	34
35	GND	0	GND	35
36	GND	0	GND	36
37	DSUBH	5	DSUBH	37

RGB ASSY

VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	G_SLOT	0	G_SLOT	3
4	GND	0	GND	4
5	B_SLOT	0	B_SLOT	5
6	GND	0	GND	6
7	R_SLOT	0	R_SLOT	7
8	GND	0	GND	8
9	HD_SLOT	0	HD_SLOT	9
10	GND	0	GND	10
11	VD_SLOT	0	VD_SLOT	11
12	GND	0	GND	12
13	AUDIO_L_SLOT	6	AUDIO_L_SLOT	13
14	GND	0	GND	14
15	AUDIO_R_SLOT	6	AUDIO_R_SLOT	15
16	GND	0	GND	16
17	SLOT_ST1	0	SLOT_ST1	17
18	S_DIN_SEL	0	S_DIN_SEL	18
19	FNC_1	0	FNC_1	19
20	FNC_0	5	FNC_0	20
21	NC	0	NC	21
22	NC	0	NC	22
23	VD_DET	0	VD_DET	23
24	GND	0	GND	24
25	HD_DET	0	HD_DET	25
26	GND	0	GND	26
27	VD_IC1	3.2	VD_IC1	27
28	GND	0	GND	28
29	HD_IC1	3	HD_IC1	29
30	GND	0	GND	30
31	GND	0	GND	31
32	RB0_IC1	0/3.3	RB0_IC1	32
33	RB1_IC1	0/3.3	RB1_IC1	33
34	RB2_IC1	0/3.3	RB2_IC1	34
35	RB3_IC1	0/3.3	RB3_IC1	35
36	RB4_IC1	0/3.3	RB4_IC1	36
37	RB5_IC1	0/3.3	RB5_IC1	37

RGB ASSY

VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
38	RB6_IC1	0/3.3	RB6_IC1	38
39	RB7_IC1	0/3.3	RB7_IC1	39
40	GND	0	GND	40
41	GND	0	GND	41
42	GB0_IC1	0/3.3	GB0_IC1	42
43	GB1_IC1	0/3.3	GB1_IC1	43
44	GB2_IC1	0/3.3	GB2_IC1	44
45	GB3_IC1	0/3.3	GB3_IC1	45
46	GB4_IC1	0/3.3	GB4_IC1	46
47	GB5_IC1	0/3.3	GB5_IC1	47
48	GB6_IC1	0/3.3	GB6_IC1	48
49	GB7_IC1	0/3.3	GB7_IC1	49
50	GND	0	GND	50
51	GND	0	GND	51
52	BB0_IC1	0/3.3	BB0_IC1	52
53	BB1_IC1	0/3.3	BB1_IC1	53
54	BB2_IC1	0/3.3	BB2_IC1	54
55	BB3_IC1	0/3.3	BB3_IC1	55
56	BB4_IC1	0/3.3	BB4_IC1	56
57	BB5_IC1	0/3.3	BB5_IC1	57
58	BB6_IC1	0/3.3	BB6_IC1	58
59	BB7_IC1	0/3.3	BB7_IC1	59
60	GND	0	GND	60
61	GND	0	GND	61
62	GND	0	GND	62
63	SCL_VS	3.1	SCL_VS	63
64	GND	0	GND	64
65	SDA_VS	3.1	SDA_VS	65
66	GND	0	GND	66
67	GND	0	GND	67
68	GND	0	GND	68
69	NC	0	NC	69
70	GND	0	GND	70
71	NC	0	NC	71
72	GND	0	GND	72
73	NC	0	NC	73
74	GND	0	GND	74
75	NC	0	NC	75
76	NC	0	NC	76
77	IN4_DET	5	IN4_DET	77
78	IN3_DET	0	IN3_DET	78
79	SLOT_ST2	3	SLOT_ST2	79
80	SR_VS	5.1	SR_VS	80
81	NC	0	NC	81
82	3G4G	3.3	3G4G	82
83	GND	0	GND	83
84	GND	0	GND	84
85	IN5_DET	0	IN5_DET	85
86	GND	0	GND	86
87	DE_IC1	2.5	DE_IC1	87
88	GND	0	GND	88
89	CK_IC1	1.5	CK_IC1	89
90	GND	0	GND	90
91	GND	0	GND	91
92	BA7_IC1	0/3.3	BA7_IC1	92
93	BA6_IC1	0/3.3	BA6_IC1	93
94	BA5_IC1	0/3.3	BA5_IC1	94

RGB ASSY

VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
95	BA4_IC1	0/3.3	BA4_IC1	95
96	BA3_IC1	0/3.3	BA3_IC1	96
97	BA2_IC1	0/3.3	BA2_IC1	97
98	BA1_IC1	0/3.3	BA1_IC1	98
99	BA0_IC1	0/3.3	BA0_IC1	99
100	GND	0	GND	100
101	GND	0	GND	101
102	GA7_IC1	0/3.3	GA7_IC1	102
103	GA6_IC1	0/3.3	GA6_IC1	103
104	GA5_IC1	0/3.3	GA5_IC1	104
105	GA4_IC1	0/3.3	GA4_IC1	105
106	GA3_IC1	0/3.3	GA3_IC1	106
107	GA2_IC1	0/3.3	GA2_IC1	107
108	GA1_IC1	0/3.3	GA1_IC1	108
109	GA0_IC1	0/3.3	GA0_IC1	109
110	GND	0	GND	110
111	GND	0	GND	111
112	RA7_IC1	0/3.3	RA7_IC1	112
113	RA6_IC1	0/3.3	RA6_IC1	113
114	RA5_IC1	0/3.3	RA5_IC1	114
115	RA4_IC1	0/3.3	RA4_IC1	115
116	RA3_IC1	0/3.3	RA3_IC1	116
117	RA2_IC1	0/3.3	RA2_IC1	117
118	RA1_IC1	0/3.3	RA1_IC1	118
119	RA0_IC1	0/3.3	RA0_IC1	119
120	GND	0	GND	120
121	GND	0	GND	121
122	GND	0	GND	122

AV I/O ASSY

AUDIO AMP ASSY

AV1 (CN7601)		Voltage (V)	AP2 (CN5001)	
No.	Name		Name	No.
1	A_NG	3.2	A_NG	15
2	TEMP3	0-3.3	TEMP3	14
3	A_MUTE	0	A_MUTE	13
4	ST_BY	2.5	ST_BY	12
5	GND	0	GND	11
6	V+6V	6.8	V+6V	10
7	V+3V	3.3	V+3V	9
8	V+12A	12	V+12A	8
9	GND	0	GND	7
10	-R_OUT	6	-R_OUT	6
11	+R_OUT	6	+R_OUT	5
12	GND	0	GND	4
13	-L_OUT	6	-L_OUT	3
14	+L_OUT	6	+L_OUT	2
15	GND	0	GND	1

AV I/O ASSY

KEY CONTROL ASSY

AV2 (CN8702)		Voltage (V)	KY1 (CN9001)	
No.	Name		Name	No.
1	GND	0	GND	1
2	KEY	3.3	KEY	2
3	V+3VSTB	3.3	V+3VSTB	3

AV I/O ASSY

LED ASSY

AV3 (CN8703)		Voltage (V)	KY1 (CN9651)	
No.	Name		Name	No.
1	V+3STB	3.3	V+3STB	1
2	LED_G	0	LED_G	2
3	LED_R	3.3	LED_R	3
4	GND	0	GND	4
5	AC_DET	2.6	AC_DET	5

COMM SLOT I/F ASSY

IR ASSY

CS4 (CN8901)		Voltage (V)	RE1 (CN4901)	
No.	Name		Name	No.
1	V+3STB	3.3	V+3STB	1
2	GND	0	GND	2
3	SR	0	SR	3
4	GND	0	GND	4

AV I/O ASSY

COMM SLOT I/F ASSY

AV5 (CN8704)		Voltage (V)	KY1 (CN8905)	
No.	Name		Name	No.
1	GND	0	GND	1
2	UART_SW	3.3	UART_SW	2
3	KEY	3.3	KEY	3
4	RXD	3.3	RXD	4
5	TXD	3.3	TXD	5
6	GND	0	GND	6

COMM SLOT I/F ASSY

COMM SLOT ASSY

CS5 (CN8904)		Voltage (V)	CN9454	
No.	Name		Name	No.
1	NC	0	NC	1
2	IRSW	0	IRSW	2
3	IR_COMM_OUT	4.9	IR_COMM_OUT	3
4	IR_COMM_IN	4.9	IR_COMM_IN	4
5	GND	0	GND	5
6	GND	0	GND	6
7	GND	0	GND	7
8	CYOB13	0	CYOB13	8
9	CYOB12	0	CYOB12	9
10	CSL_ST2	3.3	CSL_ST2	10
11	CSL_ST1	3.3	CSL_ST1	11
12				12
13				13
14	GND	0	GND	14
15	GND	0	GND	15
16	FIRST_RXD	3.3	FIRST_RXD	16
17	GET_UART	3.3	GET_UART	17
18	INT_EXT	3.3	INT_EXT	18
19	RXD_CARD	0	RXD_CARD	19
20	TXD_CARD	0	TXD_CARD	20
21	GPC5	0	GPC5	21
22	GPC4	0	GPC4	22
23	GPC3	0	GPC3	23
24	GPC2	0	GPC2	24
25	GPC1	0	GPC1	25
101	NC	0	NC	101
102	GND	0	GND	102
103	GND	0	GND	103
104	GND	0	GND	104
105	TXD_PDP	3.3	TXD_PDP	105
106	RXD_PDP	3.3	RXD_PDP	106
107	KEY_COMM_IN	3.3	KEY_COMM_IN	107
108	UART_SW	3.3	UART_SW	108
109	GND	0	GND	109
110	GND	0	GND	110
111	GND	0	GND	111
114	V+6.5V	6.8	V+6.5V	114
115	V+6.5V	6.8	V+6.5V	115
116	GND	0	GND	116
117	GND	0	GND	117
118	V+3VSTB	3.3	V+3VSTB	118
119	V+3VSTB	3.3	V+3VSTB	119
120	NC	0	NC	120
121	NC	0	NC	121
122	NC	0	NC	122
123	NC	0	NC	123
124	V+5VSTB	5	V+5VSTB	124
125	V+5VSTB	5	V+5VSTB	125

AUDIO AMP ASSY

POWER SUPPLY ASSY

AP1 (CN5002)		Voltage (V)	P6	
No.	Name		Name	No.
1	V+16R5	16.7	V+16R5	1
2	V+16R5	16.7	V+16R5	2
3	GNDP	0	GNDP	3
4	GNDP	0	GNDP	4
5	GNDP	0	GNDP	5
6	GNDP	0	GNDP	6

AUDIO AMP ASSY

SP TERMINAL R ASSY

AP3 (CN5003)		Voltage (V)	SP2 (CN9801)	
No.	Name		Name	No.
1	GND	0	GND	1
2	R+	5.3	R+	2
3	R-	5.2	R-	3
			SP TERMINAL L ASSY	
			SP1 (CN9702)	
4	STBGND	0	STBGND	1
5	TEMP3	0-3.3	TEMP3	2
6	V+3VDD	3.3	V+3VDD	3
7	GND	0	GND	4
8	L+	5.3	L+	5
9	L-	5.2	L-	6

COMM SLOT I/F ASSY

CS3 (CN8903)		Voltage (V)	VS2 (CN8952)	
No.	Name		Name	No.
1	GND	0	GND	1
2	FIRST_RXD	3.3	FIRST_RXD	2
3	GET_UART	3.3	GET_UART	3
4	INT_EXT	3.3	INT_EXT	4
5	RXD_GU	0	RXD_GU	5
6	TXD_GU	0	TXD_GU	6
7	GPC5	0	GPC5	7
8	GPC4	0	GPC4	8
9	GPC3	0	GPC3	9
10	GPC2	0	GPC2	10
11	GPC1	0	GPC1	11

VIDEO SLOT I/F ASSY

VIDEO SLOT I/F ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	G_SLOT	0	G_SLOT	3
4	GND	0	GND	4
5	B_SLOT	0	B_SLOT	5
6	GND	0	GND	6
7	R_SLOT	0	R_SLOT	7
8	GND	0	GND	8
9	HD_SLOT	0	HD_SLOT	9
10	GND	0	GND	10
11	VD_SLOT	0	VD_SLOT	11
12	GND	0	GND	12
13	AUDIO_L_SLOT	6	AUDIO_L_SLOT	13
14	GND	0	GND	14
15	AUDIO_R_SLOT	6	AUDIO_R_SLOT	15
16	GND	0	GND	16
17	SLOT_ST1	0	SLOT_ST1	17
18	S_DIN_SEL	0	S_DIN_SEL	18
19	FNC_1	0	FNC_1	19
20	FNC_0	5	FNC_0	20
21	V+3.3V	3.2	V+3.3V	21
22	V+3.3V	3.2	V+3.3V	22
23	VD_DET	0	VD_DET	23
24	GND	0	GND	24
25	HD_DET	0	HD_DET	25
26	GND	0	GND	26
27	VD	0	VD	27
28	GND	0	GND	28
29	HD	0	HD	29
30	GND	0	GND	30
31	GND	0	GND	31
32	RB0_IC1	0/3.3	RB0_IC1	32
33	RB1_IC1	0/3.3	RB1_IC1	33
34	RB2_IC1	0/3.3	RB2_IC1	34
35	RB3_IC1	0/3.3	RB3_IC1	35
36	RB4_IC1	0/3.3	RB4_IC1	36
37	RB5_IC1	0/3.3	RB5_IC1	37
38	RB6_IC1	0/3.3	RB6_IC1	38
39	RB7_IC1	0/3.3	RB7_IC1	39
40	GND	0	GND	40
41	GND	0	GND	41
42	GB0_IC1	0/3.3	GB0_IC1	42

VIDEO SLOT 2 ASSY

VIDEO SLOT I/F ASSY

VIDEO SLOT 2 ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
43	GB1_IC1	0/3.3	GB1_IC1	43
44	GB2_IC1	0/3.3	GB2_IC1	44
45	GB3_IC1	0/3.3	GB3_IC1	45
46	GB4_IC1	0/3.3	GB4_IC1	46
47	GB5_IC1	0/3.3	GB5_IC1	47
48	GB6_IC1	0/3.3	GB6_IC1	48
49	GB7_IC1	0/3.3	GB7_IC1	49
50		—		50
51		—		51
52	GND	0	GND	52
53	GND	0	GND	53
54	BB0_IC1	0/3.3	BB0_IC1	54
55	BB1_IC1	0/3.3	BB1_IC1	55
56	BB2_IC1	0/3.3	BB2_IC1	56
57	BB3_IC1	0/3.3	BB3_IC1	57
58	BB4_IC1	0/3.3	BB4_IC1	58
59	BB5_IC1	0/3.3	BB5_IC1	59
60	BB6_IC1	0/3.3	BB6_IC1	60
61	BB7_IC1	0/3.3	BB7_IC1	61
62	GND	0	GND	62
63				63
64				64
65	GND	0	GND	65
66	GND	0	GND	66
67	KEY	3.3	KEY	67
68	NC	0	NC	68
69	TXD_CARD	0	TXD_CARD	69
70	RXD_CARD	0	RXD_CARD	70
71	INT_EXT	3.3	INT_EXT	71
72	NC	0	NC	72
73	EMGREQ1_V	0	EMGREQ1_V	73
74	EMGREQ2_V	0	EMGREQ2_V	74
75	IC1V_OE	3.3	IC1V_OE	75
76	RESETX1	3.3	RESETX1	76
77	NC	0	NC	77
78	SD_SEL	3.3	SD_SEL	78
79	FNC2	0	FNC2	79
80	FNC3	0	FNC3	80
81	SOUND1	3.3	SOUND1	81
82	GND	0	GND	82
83	DSUBR	3.8	DSUBR	83
84	GND	0	GND	84
85	DSUBG	3.8	DSUBG	85
86	GND	0	GND	86
87	DSUBB	3.8	DSUBB	87
88	GND	0	GND	88
89	IN5_HD	0	IN5_HD	89
90	SOUA_X	3.3	SOUA_X	90
91	GPC1	0	GPC1	91
92	GPC2	0	GPC2	92
93	GPC5	0	GPC5	93
94	VYOB11	0	VYOB11	94
95	VYOB12	0	VYOB12	95
96	DSUBSW_DET	3.3	DSUBSW_DET	96
101	GND	0	GND	101
102	GND	0	GND	102
103	GND	0	GND	103

VIDEO SLOT I/F ASSY

VIDEO SLOT 2 ASSY

VS5 (CN8954)			Voltage (V)	CN7902	
No.	Name			Name	No.
104	SCL_VS	3.1		SCL_VS	104
105	GND	0		GND	105
106	SDA_VS	3.1		SDA_VS	106
107	GND	0		GND	107
108	GND	0		GND	108
109	GND	0		GND	109
110	V+12V	12.9		V+12V	110
111	GND	0		GND	111
112	NC	0		NC	112
113	GND	0		GND	113
114	V+3.3STB	3.3		V+3.3STB	114
115	V+13.5	13.6		V+13.5	115
116	V+13.5	13.6		V+13.5	116
117	IN4_DET	5		IN4_DET	117
118	IN3_DET	0		IN3_DET	118
119	SLOT_ST2	3		SLOT_ST2	119
120	IR	5.1		IR	120
121	NC	0		NC	121
122	NC	0		NC	122
123	GND	0		GND	123
124	GND	0		GND	124
125	3G4G	3.3		3G4G	125
126	IN5_DET	0		IN5_DET	126
127	GND	0		GND	127
128	DE	2.5		DE	128
129	GND	0		GND	129
130	CLK	1.5		CLK	130
131	GND	0		GND	131
132	BA7_IC1	0/3.3		BA7_IC1	132
133	BA6_IC1	0/3.3		BA6_IC1	133
134	BA5_IC1	0/3.3		BA5_IC1	134
135	BA4_IC1	0/3.3		BA4_IC1	135
136	BA3_IC1	0/3.3		BA3_IC1	136
137	BA2_IC1	0/3.3		BA2_IC1	137
138	BA1_IC1	0/3.3		BA1_IC1	138
139	BA0_IC1	0/3.3		BA0_IC1	139
140	GND	0		GND	140
141	GND	0		GND	141
142	GA7_IC1	0/3.3		GA7_IC1	142
143	GA6_IC1	0/3.3		GA6_IC1	143
144	GA5_IC1	0/3.3		GA5_IC1	144
145	GA4_IC1	0/3.3		GA4_IC1	145
146	GA3_IC1	0/3.3		GA3_IC1	146
147	GA2_IC1	0/3.3		GA2_IC1	147
148	GA1_IC1	0/3.3		GA1_IC1	148
149	GA0_IC1	0/3.3		GA0_IC1	149
150					150
151					151
152	GND	0		GND	152
153	GND	0		GND	153
154	RA7_IC1	0/3.3		RA7_IC1	154
155	RA6_IC1	0/3.3		RA6_IC1	155
156	RA5_IC1	0/3.3		RA5_IC1	156
157	RA4_IC1	0/3.3		RA4_IC1	157
158	RA3_IC1	0/3.3		RA3_IC1	158
159	RA2_IC1	0/3.3		RA2_IC1	159
160	RA1_IC1	0/3.3		RA1_IC1	160

VIDEO SLOT I/F ASSY

VIDEO SLOT 2 ASSY

VS5 (CN8954)			Voltage (V)	CN7902	
No.	Name			Name	No.
161	RA0_IC1	0/3.3		RA0_IC1	161
162	GND	0		GND	162
163					163
164					164
165	GND	0		GND	165
166	GND	0		GND	166
167	VSEPSCL	3.3		VSEPSCL	167
168	VSEPSDA	3.3		VSEPSDA	168
169	NC	0		NC	169
170	GET_UART	3.3		GET_UART	170
171	FIRST_RXD	3.3		FIRST_RXD	171
172	NC	0		NC	172
173	EMGREQ1_S	0		EMGREQ1_S	173
174	EMGREQ2_S	0		EMGREQ2_S	174
175	IC1S_OE	0		IC1S_OE	175
176	NC	0		NC	176
177	NC	0		NC	177
178	NC	0		NC	178
179	SLOT_ST3	0.4		SLOT_ST3	179
180	M_CHOICE	0		M_CHOICE	180
181	SOUND2	0		SOUND2	181
182	GND	0		GND	182
183	GND	0		GND	183
184	DSUBH	5		DSUBH	184
185	GND	0		GND	185
186	DSUBV	0		DSUBV	186
187	GND	0		GND	187
188	GND	0		GND	188
189	IN5_VD	3.3		IN5_VD	189
190	HYOUJI_X	0		HYOUJI_X	190
191	GPC3	0		GPC3	191
192	GPC4	0		GPC4	192
193	NC	0		NC	193
194	VYOB14	0		VYOB14	194
195	VYOB15	0		VYOB15	195
196	VYOB16	0		VYOB16	196

KEY CONTROL ASSY

FRONT KEY ASSY

KY2 (CN9002)			Voltage (V)	KY4 (CN9400)	
No.	Name			Name	No.
1	D7	0/3.3		D7	1
2	D6	0/3.3		D6	2
3	D5	0/3.3		D5	3
4	G0	0/3.3		G0	4
5	G1	0/3.3		G1	5
6	G2	0/3.3		G2	6

5. PCB PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56 x 10¹ \rightarrow 561 RD1/4PU $\overline{561}$ J
 47k Ω \rightarrow 47 x 10³ \rightarrow 473 RD1/4PU $\overline{473}$ J
 0.5 Ω \rightarrow R50 RN2H $\overline{R50}$ K
 1 Ω \rightarrow 1R0 RS1P $\overline{1R0}$ K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562 x 10¹ \rightarrow 5621 RN1/4PC $\overline{5621}$ F

Mark No. Description Part No. LIST OF ASSEMBLIES for PDP-5004, PDP-5014 models

NSP	1..50 ADDRESS ASSY	AWV2121
NSP	2..50 ADDRESS ASSY	AWZ6839
NSP	1..50 SCAN FUKUGO ASSY	AWV2036
NSP	2..50 SCAN A ASSY	AWZ6809
NSP	2..50 SCAN B ASSY	AWZ6810
NSP	2..X CONNECTOR A ASSY	AWZ6811
NSP	2..X CONNECTOR B ASSY	AWZ6812
NSP	1..50 X DRIVE ASSY	AWV2143
	2..PANEL SENSOR ASSY	AWZ6795
	2..50 X DRIVE ASSY	AWZ6959
	1..50 Y DRIVE ASSY	AWV2144
NSP	1..CM RGB ASSY	AWV2150
	2..RGB ASSY	AWZ6961
NSP	1..CMS FUKUGO ASSY(PDP-5004)	AWV2151
NSP	1..CMB FUKUGO ASSY(PDP-5014)	AWV2152
	2..AUDIO AMP ASSY	AWZ6848
	2..VIDEO SLOT I/F ASSY	AWZ6851
	2..IR RECEIVE ASSY	AWZ6855
	2..SP TERMINAL L ASSY	AWZ6856
	2..SP TERMINAL R ASSY	AWZ6857
	2..COVER ASSY	AWZ6858
	2..AV I/O I/F ASSY	AWZ6859
	2..COMM SLOT I/F ASSY	AWZ6964
	2..LED ASSY	AWZ6966
	2..AV I/O ASSY (PDP-5004)	AWZ6967
	2..AV I/O ASSY (PDP-5014)	AWZ6971
	2..COMM SLOT ASSY	AWZ6968
	2..KEY CONTROL ASSY	AWZ6969
	2..FRONT KEY ASSY	AWZ6970
	1..DIGITAL VIDEO ASSY	AWV2100
	1..VIDEO SLOT2 ASSY	AWV2159

Mark No. Description Part No. LIST OF ASSEMBLIES for PDP-4304, PDP-4314 models

NSP	1..43 ADDRESS ASSY	AWV2120
NSP	2..43 ADDRESS ASSY	AWZ6793
NSP	1..43 SCAN FUKUGO ASSY	AWV2023
NSP	2..43 SCAN A ASSY	AWZ6796
NSP	2..43 SCAN B ASSY	AWZ6797
NSP	2..X CONNECTOR A ASSY	AWZ6798
NSP	2..X CONNECTOR B ASSY	AWZ6799
NSP	1..43 X DRIVE ASSY	AWV2021
	2..PANEL SENSOR ASSY	AWZ6795
	2..43 X DRIVE ASSY	AWZ6840
	1..43 Y DRIVE ASSY	AWV2022
NSP	1..CM RGB ASSY	AWV2150
	2..RGB ASSY	AWZ6961
NSP	1..CMS FUKUGO ASSY(PDP-4304)	AWV2151
NSP	1..CMB FUKUGO ASSY(PDP-4314)	AWV2152
	2..AUDIO AMP ASSY	AWZ6848
	2..VIDEO SLOT I/F ASSY	AWZ6851
	2..IR RECEIVE ASSY	AWZ6855
	2..SP TERMINAL L ASSY	AWZ6856
	2..SP TERMINAL R ASSY	AWZ6857
	2..COVER ASSY	AWZ6858
	2..AV I/O I/F ASSY	AWZ6859
	2..COMM SLOT I/F ASSY	AWZ6964
	2..LED ASSY	AWZ6966
	2..AV I/O ASSY (PDP-4304)	AWZ6967
	2..AV I/O ASSY (PDP-4314)	AWZ6971
	2..COMM SLOT ASSY	AWZ6968
	2..KEY CONTROL ASSY	AWZ6969
	2..FRONT KEY ASSY	AWZ6970
	1..DIGITAL VIDEO ASSY	AWV2100
	1..VIDEO SLOT2 ASSY	AWV2159

CONTRAST OF PCB ASSEMBLIES

AV I/O ASSY

AWZ6967 and AWZ6971 are constructed the same except for the following :

Mark	No. Description	AWZ6967	AWZ6971
	[IF UCOM BLOCK]		
	R8743	RS1/16S103J	Not used
	R8744	Not used	RS1/16S103J

PCB PARTS LIST for PDP-5004, PDP-5014 models

Mark No.	Description	Part No.	Mark No.	Description	Part No.
50 ADDRESSASSY					
[50 ADR LOGICBLOCK]					
SEMICONDUCTORS					
IC1501		PEE001B	C3023, C3024, C3034, C3035 (0.1microF/250V)		ACG1088
			C3045, C3046, C3056, C3057 (0.1microF/250V)		ACG1088
			C3005, C3008, C3016, C3019, C3026 C3029, C3037, C3040, C3048, C3051		CCSRCH101J50 CCSRCH101J50
COILS AND FILTERS			C3060, C3063 C3004		CCSRCH101J50 CCSRCH151J50
F1501-F1503		ATF1194	C3007, C3018, C3033, C3044, C3050 C3062		CCSRCH181J50 CCSRCH181J50
CAPACITORS			C3006, C3011, C3017, C3022		CCSRCH331J50
C1553, C1556, C1559, C1560, C1563 C1501, C1502	ACG1105 ACH1357		C3031, C3032, C3042, C3043, C3049 C3055, C3061, C3066		CCSRCH331J50 CCSRCH331J50
C1503-C1507, C1552, C1555, C1558 C1561, C1564	CKSSYF104Z16 CKSSYF104Z16		C3009, C3010, C3020, C3021, C3028 C3030, C3039, C3041, C3053, C3054 C3064, C3065		CCSRCH390J50 CCSRCH390J50 CCSRCH390J50
RESISTORS			C3003, C3014, C3025, C3036, C3047 C3058		CKSRYB105K6R3 CKSRYB105K6R3
R1510, R1519, R1522, R1526 R1513-R1518 R1505-R1509 Other Resistors	RAB4C470J RS1/16SS470J RS1/16SS1000F RS1/16S###J		RESISTORS		
OTHERS			R3003, R3011, R3017, R3025, R3030 R3036 Other Resistors		RAB4C221J RAB4C221J RS1/16S###J
CN1501 40P FFC CONNECTOR	AKM1215		OTHERS		
[50 ADR RESONANCE BLOCK]			CN3001 15P CONNECTOR		AKP1218
SEMICONDUCTORS			K3001, K3004, K3009, K3015, K3017 TEST PIN		AKX9002
IC1601-IC1603 Q1604 Q1601 Q1602, Q1603 D1601	TND304S 2SA1163 HAT1081R HAT3019R 1SS302		K3019, K3021 TEST PIN		AKX9002
D1608, D1609, D1617, D1618 D1610, D1611, D1616, D1619, D1620 D1604, D1612 D1602, D1606, D1607, D1614, D1615 D1621, D1622	EC10UA20 EC11FS2 MA126 UDZS15B UDZS24B		50 SCAN B ASSY		
COILS AND FILTERS			SEMICONDUCTORS		
L1601, L1602	ATH1135		IC3201-IC3206 D3201		AN16003A KU10N16
CAPACITORS			CAPACITORS		
C1609, C1615 (0.47microF) C1605, C1607, C1608, C1613, C1614 (0.01microF/100V) C1618 C1603 (47microF/16V) C1601, C1602 (56microF/80V)	ACE1172 ACG1101 ACH1357 ACH1391 ACH1405		C3201, C3211, C3212, C3222, C3223 (0.1microF/250V) C3233, C3234, C3244, C3245 (0.1microF/250V) C3255, C3256, C3266 (0.1microF/250V)		ACG1088 ACG1088 ACG1088
C1604, C1606, C1612	CKSSYF104Z16		C3203, C3204, C3214, C3215, C3226 C3228, C3237, C3239, C3247, C3251		CCSRCH101J50 CCSRCH101J50
RESISTORS			C3258, C3259 C3262 C3206, C3217, C3232, C3243, C3249 C3261 C3205, C3210, C3216, C3221		CCSRCH101J50 CCSRCH151J50 CCSRCH181J50 CCSRCH181J50 CCSRCH331J50
R1631 R1633 R1632 Other Resistors	ACN1174 RS1/16S1202F RS1/16S1502F RS1/16S###J		C3230, C3231, C3241, C3242, C3248 C3254, C3260, C3265 C3208, C3209, C3219, C3220, C3227 C3229, C3238, C3240, C3252, C3253 C3263, C3264		CCSRCH331J50 CCSRCH331J50 CCSRCH390J50 CCSRCH390J50 CCSRCH390J50
50 SCAN A ASSY			C3202, C3213, C3224, C3235, C3246 C3257		CKSRYB105K6R3 CKSRYB105K6R3
SEMICONDUCTORS			RESISTORS		
IC3001-IC3006 D3001	AN16003A KU10N16		R3202, R3210, R3216, R3224, R3229 R3235 Other Resistors		RAB4C221J RAB4C221J RS1/16S###J
CAPACITORS					
C3001, C3002, C3012, C3013 (0.1microF/250V)	ACG1088				

Mark No.	Description	Part No.
OTHERS		
CN3201	15P CONNECTOR	AKP1218
K3203, K3208, K3214, K3216, K3218	TEST PIN	AKX9002
K3220, K3221	TEST PIN	AKX9002

X CONNECTOR A ASSY

This assembly has no service part.

X CONNECTOR B ASSY

This assembly has no service part.

50 X DRIVE ASSY

[50 X LOGIC BLOCK]

SEMICONDUCTORS

IC1002	TC74ACT540FT
IC1001	TC74ACT541FT
IC1003	TC74VHC08FT

CAPACITORS

C1001	CEHAT470M25
C1002-C1004	CKSRYB104K16

RESISTORS

R1001, R1002, R1005	RAB4C470J
R1003, R1004, R1007	RAB4C472J

OTHERS

CN1001	30P FFC CONNECTOR	AKM1218
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[50 X RESONANCE BLOCK]

SEMICONDUCTORS

IC1103	BA10393F
IC1101, IC1102	TND506MD
Q1113	2SC2412K
Q1102, Q1103, Q1111, Q1112	2SK3560
Q1105, Q1106, Q1108, Q1109	2SK3723

Q1101, Q1104, Q1107, Q1110	CPH5506
D1109, D1122	1SS302
D1131, D1132	1SS355
D1101, D1102, D1104, D1105	EC11FS4
D1107, D1108, D1111, D1114-D1117	EC11FS4

D1120, D1121, D1127, D1128	EC11FS4
D1103, D1118, D1124, D1125, D1130	FCU20A30
D1113, D1129	RF2001T3D
D1110, D1123	UDZS16B

COILS AND FILTERS

L1103, L1105	ATH1119
L1104	ATH1155
L1102	ATH1156
L1101	LFEA470J

CAPACITORS

C1112-C1114, C1125-C1127	ACE1168
C1111, C1124 (100pF/630V)	ACG1104
C1109, C1119 (0.1microF/630V)	ACG1108
C1101, C1105, C1116, C1117	CCSRCH331J50
C1128, C1130-C1132	CKSRYB104K16
C1102, C1118	CKSRYB105K6R3
C1104, C1108, C1115, C1122	CKSYB105K25

7

8

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
<u>RESISTORS</u>		
R1116, R1122		RS1/10S1003F
R1133, R1143-R1145		RS1/10S100J
R1103, R1106, R1110, R1111		RS1/10S2R2J
R1118, R1119, R1123, R1126, R1153		RS1/10S2R2J
R1136		RS1/16S1202F
R1139		RS1/16S3301F
R1130		RS1/16S5601F
R1134		RS1/16S8201F
R1113, R1128		RS1MMF101J
VR1101-VR1104		CCP1390
Other Resistors		RS1/16S###J

OTHERS

3301	SPACER	AEH1075
3501	SCREW	PMH30P080FMC

[50 X SUS BLOCK]

SEMICONDUCTORS

IC1202	HCPL-M611
IC1205	NJM2872F05
IC1203, IC1207	STK795-512
IC1208	TLP181(P-GR)
IC1204, IC1206	TND301S

Q1207	2SC2412K
Q1203	2SD1898
Q1302	2SJ522
Q1301	2SK2503
Q1205	2SK3116-Z

Q1206, Q1208	DTC124EK
Q1201	HN1B04FU
D1212	1SS302
D1211, D1213, D1216	1SS355
D1201, D1207	EC10QS04

D1204, D1301	EC11FS4
D1214	EC8FS6
D1208	UDZS5.6B

COILS AND FILTERS

L1204, L1205	ATH1112
L1202	LFEA100J
L1203, L1206	LFEA470J

CAPACITORS

C1214-C1217, C1227-C1230	ACE1163
C1233	ACE1169
C1244	ACE1170
C1209 (0.1microF/630V)	ACG1092
C1219, C1231	ACH1358

C1224	CEHAT101M16
C1301	CEHAT221M25
C1203, C1207, C1210, C1220, C1223	CEHAT470M25
C1238, C1239	CEHAT470M25
C1235	CKSRYB102K50

C1213, C1225, C1240, C1241, C1243	CKSRYB104K16
C1202, C1205, C1206, C1212, C1302	CKSRYF104Z50

RESISTORS

R1230	ACN1166
R1208, R1321, R1322	ACN1174
R1304	ACN1195

Mark No. Description**Part No.**R1305
R1301, R1302, R1314ACN1198
RS1/10S122J

A

R1226, R1251
R1235, R1236
Other ResistorsRS1MMF331J
RS2MMF121J
RS1/16S###J**OTHERS**KN1201-KN1205, KN1208-KN1214
GROUND PLATE
CN1201 12P TOP POSTANK-142
B12B-EH**[50 X D-D CON BLOCK]
SEMICONDUCTORS**

B

IC1404
IC1402
IC1401, IC1403
Q1401
Q1402AN1431M
MIP161
TLP181(P-GR)
2SA1037K
2SC2412KD1407, D1408
D1404
D1401, D1403EC11FS2
EC8FS6
UDZS5.6B**COILS AND FILTERS**L1401
T1401ATH1110
ATK1153

C

CAPACITORSC1401, C1402
C1404
C1405
C1409
C1403, C1407, C1408, C1411ACH1361
CEHAT101M16
CEHAT101M25
CEHAT331M16
CKSRYB104K16

C1406

CKSRYF104Z50

RESISTORS

D

R1405, R1406, R1408-R1410, R1414
R1420
R1403
R1401, R1404
R1417RS1/10S3602F
RS1/16S1101F
RS1/16S2702F
RS1/16S4701F
RS1/16S7500FVR1401
Other ResistorsCCP1390
RS1/16S###J**OTHERS**1002 CARD SPACER
1001 DRIVE SIRICON SHEET
1001 PLATE X
1001 DRIVE HEATSINK A
1001 SCREW
1002 SCREWAEC1957
AEH1062
ANG2622
ANH1613
BMZ30P080FZK
PMB30P060FNI

E

PANEL SENSOR ASSY**SEMICONDUCTORS**IC1072
IC1071MM1522XU
MM3012XN**CAPACITORS**C1075
C1074
C1071, C1076
C1072, C1073ACH1357
CKSRYB103K50
CKSRYB104K16
CKSRYF105Z10

F

Mark No. Description**Part No.****RESISTORS**R1076, R1078
Other ResistorsRS1/16S1001F
RS1/16S###J**50 Y DRIVE ASSY****[50 Y LOGIC BLOCK]****SEMICONDUCTORS**IC2002
IC2001, IC2003
IC2005
IC2004
Q2001TC74ACT540FT
TC74ACT541FT
TC74VHC08FT
TC74VHC541FT
DTC124EK**CAPACITORS**C2001
C2010, C2011
C2002-C2006CEHAT470M16
CKSRYB104K16
CKSRYF104Z50**RESISTORS**R2018, R2019
R2002, R2004, R2013-R2015
R2005, R2006, R2012, R2016, R2017
Other ResistorsRAB4C102J
RAB4C470J
RAB4C472J
RS1/16S###J**OTHERS**

CN2001

AKM1201

**[50 Y RESONANCE BLOCK]
SEMICONDUCTORS**IC2211
IC2201, IC2202
Q2213
Q2202, Q2211, Q2212, Q2214
Q2205, Q2206, Q2208, Q2209BA10393F
TND506MD
2SC2412K
2SK3560
2SK3723Q2201, Q2204, Q2207, Q2210
D2209, D2223
D2230, D2232
D2202-D2205, D2207, D2208
D2213, D2214, D2216-D2219, D2222CPH5506
1SS302
1SS355
EC11FS4
EC11FS4D2226, D2227
D2201, D2206, D2211, D2220, D2229
D2215, D2228
D2210, D2224EC11FS4
FCU20A30
RF2001T3D
UDZS16B**COILS AND FILTERS**L2203, L2205 CHOKE COIL
L2204 CHOKE COIL
L2202 CHOKE COIL
L2201ATH1119
ATH1155
ATH1156
LFEA470J**CAPACITORS**C2212-C2214, C2225-C2227
C2211, C2224 (100pF/630V)
C2210, C2223 (0.1microF/630V)
C2202, C2205, C2216, C2217
C2230, C2232, C2233, C2235ACE1168
ACG1104
ACG1108
CCSRCH331J50
CKSRYB104K16C2203, C2218
C2201, C2208, C2215, C2219CKSRYB105K6R3
CKSYB105K25**RESISTORS**R2240, R2241
R2244-R2247RS1/10S1003F
RS1/10S100J

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
R2204, R2205, R2211, R2213 R2220, R2221, R2224, R2228, R2253 R2234	RS1/10S2R2J RS1/10S2R2J RS1/16S1202F		OTHERS KN2301-KN2305, KN2310-KN2312 KN2314-KN2316 GROUND PLATE CN2301 11P TOP POST	ANK-142 ANK-142 B11B-EH
R2235 R2233 R2242 R2215, R2230 VR2201-VR2204	RS1/16S3301F RS1/16S5601F RS1/16S8201F RS1MMF101J CCP1390		[50 Y SCAN BLOCK] SEMICONDUCTORS IC2101, IC2103-IC2106, IC2108, IC2109 IC2102, IC2107	HCPL-M611 TC74ACT540FT
Other Resistors	RS1/16S###J		COILS AND FILTERS L2101-L2103	LFEA100J
OTHERS 3301 SPACER 3501 SCREW	AEH1075 PMH30P080FMC		CAPACITORS C2104, C2111, C2116, C2117 C2101, C2107, C2113 C2102, C2103, C2105, C2106 C2108-C2110, C2112, C2114	ACH1392 CEHAT221M16 CKSRYB104K16 CKSRYB104K16
[50 Y SUS BLOCK] SEMICONDUCTORS IC2302, IC2308 IC2305 IC2303, IC2307 IC2301, IC2304, IC2309 Q2310	HCPL-M611 NJM2872F05 STK795-513 TND301S 2SC2412K		RESISTORS R2121, R2128 Other Resistors	RAB4C472J RS1/16S###J
Q2303, Q2307 Q2301 Q2302, Q2308, Q2312 Q2309 D2302	2SD1898 2SJ522 2SK3325-Z HN1B04FU 1SS302		OTHERS CN2101, CN2102 15P CONNECTOR	AKM1200
D2319, D2320 D2305 D2301 D2306, D2318	EC10QS04 EC11FS4 UDZS16B UDZS5.6B		[50 Y D-D CON BLOCK] SEMICONDUCTORS IC2410-IC2412 IC2406 IC2401 IC2402-IC2405, IC2407-IC2409 Q2402, Q2407	AN1431M BA10358F MIP0223SC TLP181(P-GR) 2SA1037K
COILS AND FILTERS L2306, L2307 L2304 L2308 L2301, L2302, L2305	ATH1112 LFEA100J LFEA101J LFEA470J		Q2410 Q2417 Q2411-Q2414, Q2416 Q2405 Q2403	2SA1163 2SA1535 2SC2412K 2SC2713 2SD1664
CAPACITORS C2309-C2312, C2326, C2327 C2329, C2330 C2314 C2302 C2316, C2331	ACE1163 ACE1163 ACE1165 ACG1092 ACH1358		Q2401, Q2404 Q2415 D2430 D2410, D2419, D2436 D2409, D2418	2SD1898 HN1C01FU 1SS301 1SS302 1SS355
C2303 C2336 C2306, C2334 C2308, C2324, C2339, C2340 C2304, C2320, C2338	ACH1361 ACH1393 CEHAT221M25 CEHAT470M16 CEHAT470M25		D2404-D2407 D2403, D2414 D2402 D2427 D2401	EC11FS2 EC11FS4 EC8FS6 RD91PA U1ZB330
C2305, C2322, C2323, C2325, C2333 C2341 C2301, C2307, C2328	CKSRYB104K16 CKSRYB104K16 CKSRYF104Z50		D2412, D2413, D2422 D2425, D2426 D2415 D2432 D2423, D2431	UDZS15B UDZS27B UDZS33B UDZS4.3B UDZS5.6B
RESISTORS R2332 R2364, R2365 R2309 R2310, R2311 R2312-R2314, R2322, R2323	ACN1166 ACN1174 RS1MMF132J RS1MMF472J RS3LMF100J		COILS AND FILTERS T2402 T2403 T2401 L2402 L2401	ATK1156 ATK1157 ATK1158 LFEA100J LFEA101J
R2348, R2352, R2358, R2359 Other Resistors	RS3LMF1R8J RS1/16S###J		L2403	LFEA470J

Mark No. Description**Part No.****Mark No. Description****Part No.****CAPACITORS**

C2406
C2401
C2427
C2403
C2405, C2407, C2417

ACH1360
ACH1361
CEHAT100M50
CEHAT101M16
CEHAT101M25

C2414
C2410
C2411
C2420
C2409, C2419

CEHAT221M16
CEHAT221M25
CEHAT331M25
CEHAT470M2A
CKSRYB103K50

C2402, C2412, C2413, C2423, C2425
C2431, C2432, C2434-C2436
C2441-C2443
C2415, C2421, C2428
C2404, C2408, C2416, C2418, C2426

CKSRYB104K16
CKSRYB104K16
CKSRYB104K16
CKSRYB105K6R3
CKSRYF104Z50

C2429

CKSRYF104Z50

RESISTORS

R2429
R2435, R2439
R2402-R2404
R2442
R2468

ACN1225
RS1/10S2202F
RS1/10S3902F
RS1/16S1201F
RS1/16S1202F

R2424
R2420, R2427, R2438
R2467
R2457-R2460
R2506

RS1/16S2001F
RS1/16S2201F
RS1/16S3301F
RS1/16S4701F
RS3LMF151J

VR2401, VR2402
Other Resistors

CCP1390
RS1/16S###J

OTHERS

2401 HEATSINK
2401 SCREW
2002 CARD SPACER
2001 DRIVE SIRICON SHEET
2001 PLATE Y

ANH1614
BBZ30P080FZK
AEC1957
AEH1062
ANG2557

2001 DRIVE HEATSINK A
2001 SCREW
2002 SCREW

ANH1613
BMZ30P080FZK
PMB30P060FNI

PCB PARTS LIST for PDP-4304, PDP-4314 models**43 ADDRESS ASSY****[ADR LOGIC BLOCK]
SEMICONDUCTORS**

IC1501

PEE001B

COILS AND FILTERS

F1501-F1503

ATF1194

CAPACITORS

C1556, C1559, C1560, C1563
(330p/100V)
C1501, C1502(47/6.3V)
C1503-C1507, C1555, C1558, C1561
C1564

ACG1105
ACH1357
CKSSYF104Z16
CKSSYF104Z16

RESISTORS

R1510, R1519, R1522

RAB4C470J

OTHERS

CN1501 40P FFC CONNECTOR

RS1/16SS470J
RS1/16SS1000F
RS1/16S###J

AKM1215

**[ADR RESONANNCE BLOCK]
SEMICONDUCTORS**

IC1601-IC1603
Q1604
Q1601
Q1602, Q1603
D1601

TND304S
2SA1163
HAT1081R
HAT3019R
1SS302

D1608, D1609, D1617, D1618
D1610, D1611, D1616, D1619, D1620
D1604, D1612
D1602, D1606, D1607, D1614, D1615
D1621, D1622

EC10UA20
EC11FS2
MA126
UDZS15B
UDZS24B

COILS AND FILTERS

L1601, L1602

ATH1135

CAPACITORS

C1609, C1615 (0.47/100V)
C1605, C1607, C1608, C1613, C1614
(0.01/100V)
C1618 (47/6.3V)
C1603 (47/16V)

ACE1172
ACG1101
ACH1357
ACH1391

C1601, C1602 (56/80V)
C1604, C1606, C1612

ACH1405
CKSSYF104Z16

RESISTORS

R1631 (10, 1/2W)
Other Resistors

ACN1174
RS1/16S###J

43 SCAN A ASSY**SEMICONDUCTORS**

IC3001-IC3006
D3001

SN755864APZP
KU10N16

CAPACITORS

C3001, C3002, C3012, C3013
C3023, C3024, C3034, C3035
C3045, C3046, C3056, C3057
(0.1/250V)
C3005, C3008, C3016, C3019, C3026

ACG1088
ACG1088
ACG1088
CCSRCH101J50

C3029, C3037, C3040, C3048, C3051
C3060, C3063
C3007, C3018, C3033, C3044, C3050
C3062
C3006, C3011, C3017, C3022

CCSRCH101J50
CCSRCH101J50
CCSRCH181J50
CCSRCH181J50
CCSRCH331J50

C3031, C3032, C3042, C3043, C3049
C3055, C3061, C3066
C3009, C3010, C3020, C3021, C3028
C3030, C3039, C3041, C3053, C3054
C3064, C3065

CCSRCH331J50
CCSRCH331J50
CCSRCH390J50
CCSRCH390J50
CCSRCH390J50

C3003, C3014, C3025, C3036, C3047
C3058

CKSRYB105K6R3
CKSRYB105K6R3

RESISTORS

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
R3003,R3011,R3017,R3025,R3030 R3036 Other Resistors	RAB4C221J RAB4C221J RS1/16S###J	IC1001 IC1003	TC74ACT541FT TC74VHC08FT	
OTHERS		CAPACITORS		
CN3001 15P CONNECTOR K3001,K3004,K3009,K3015,K3017 K3019,K3021 TEST PIN	AKP1218 AKX9002 AKX9002	C1001 C1002-C1004	CEHAT470M25 CKSRYB104K16	A
43 SCAN B ASSY		RESISTORS		
SEMICONDUCTORS		R1001,R1002,R1005 R1003,R1004,R1007	RAB4C470J RAB4C472J	
IC3201-IC3206 D3201	SN755864APZP KU10N16	OTHERS		
CAPACITORS		CN1001 30P FFC CONNECTOR	AKM1218	
C3201,C3211,C3212,C3222,C3223 C3233,C3234,C3244,C3245 C3255,C3256,C3266 (0.1/250V) C3203,C3204,C3214,C3215,C3226 C3228,C3237,C3239,C3247,C3251	ACG1088 ACG1088 ACG1088 CCSRCH101J50 CCSRCH101J50	[RESONANCE BLOCK]		
C3258,C3259 C3206,C3217,C3232,C3243,C3249 C3261 C3205,C3210,C3216,C3221 C3230,C3231,C3241,C3242,C3248	CCSRCH101J50 CCSRCH181J50 CCSRCH181J50 CCSRCH331J50 CCSRCH331J50	SEMICONDUCTORS		B
C3254,C3260,C3265 C3208,C3209,C3219,C3220,C3227 C3229,C3238,C3240,C3252,C3253 C3263,C3264 C3202,C3213,C3224,C3235,C3246	CCSRCH331J50 CCSRCH390J50 CCSRCH390J50 CCSRCH390J50 CKSRYB105K6R3	IC1103 IC1101,IC1102 Q1113 Q1102,Q1103,Q1111,Q1112,Q1114 Q1105,Q1106,Q1108,Q1109	BA10393F TND506MD 2SC2412K 2SK3560 2SK3723	
C3257	CKSRYB105K6R3	Q1101,Q1104,Q1107,Q1110 D1109,D1122 D1112,D1119 D1101,D1102,D1104,D1105 D1107,D1108,D1111,D1114-D1117	CPH5506 1SS302 1SS355 EC11FS4 EC11FS4	
RESISTORS		D1120,D1121,D1127,D1128 D1103,D1106,D1113,D1118 D1124,D1125 D1110,D1123	EC11FS4 TCU20A30 TCU20A30 UDZS16B	C
R3202,R3210,R3216,R3224,R3229 R3235 Other Resistors	RAB4C221J RAB4C221J RS1/16S###J	COILS AND FILTERS		
OTHERS		L1104 L1102 L1103,L1105 L1101	ATH1119 ATH1133 ATH1134 LFEA470J	
CN3201 15P CONNECTOR K3203,K3208,K3214,K3216,K3218 K3220,K3221 TEST PIN	AKP1218 AKX9002 AKX9002	CAPACITORS		D
X CONNECTOR A ASSY		C1113,C1114,C1126,C1127 (3.3/250V) C1111,C1124 (100p/630V) C1109,C1119 (0.1/630V) C1101,C1105,C1116,C1117 C1128,C1130-C1132	ACE1168 ACG1104 ACG1108 CCSRCH331J50 CKSRYB104K16	
This assembly has no service part.		C1102,C1118 C1104,C1108,C1115,C1122	CKSRYB105K6R3 CKSYB105K25	
X CONNECTOR B ASSY		RESISTORS		
This assembly has no service part.		R1116,R1122 R1133,R1143-R1145 R1103,R1106,R1118,R1119,R1153 R1136 R1139	RS1/10S1003F RS1/10S100J RS1/10S2R2J RS1/16S1202F RS1/16S3301F	E
43 X DRIVE ASSY		R1130 R1134 R1113,R1128 VR1101-VR1104 Other Resistors	RS1/16S5601F RS1/16S8201F RS1MMF101J CCP1390 RS1/16S###J	
OTHERS		[SUS BLOCK]		
1002 CARD SPACER 1001 DRIVE SIRICON SHEET A 1001 PLATE X 1001 DRIVE HEATSINK A 1001 SCREW	AEC1957 AEH1062 ANG2622 ANH1613 BMZ30P080FZK	SEMICONDUCTORS		F
1002 SCREW	PMB30P060FNI	IC1202 IC1205 IC1203,IC1207 IC1208 IC1204,IC1206	HCPL-M611 NJM2872F05 STK795-510 TLP181(P-GR) TND301S	
[X LOGIC BLOCK]				
SEMICONDUCTORS				
IC1002	TC74ACT540FT			

Mark No. Description**Part No.****Mark No. Description****Part No.**

Q1207 2SC2412K
 Q1203 2SD1898
 Q1302 2SJ522
 Q1301 2SK2503
 Q1205 2SK2908-01S

Q1206,Q1208 DTC124EK
 Q1201 HN1B04FU
 D1212 1SS302
 D1211,D1213,D1216 1SS355
 D1201,D1207 EC10QS04

D1204,D1301 EC11FS4
 D1214 EC8FS6
 D1208 UDZS5.6B

COILS AND FILTERS

L1204,L1205 ATH1112
 L1202 LFEA100J
 L1203,L1206 LFEA470J

CAPACITORS

C1214-C1217,C1227-C1230 ACE1163
 C1233 (0.12/250V) ACE1169
 C1244 (0.1/250V) ACE1170
 C1209 (0.1/630V) ACG1092
 C1219,C1231 ACH1359

C1224 CEHAT101M16
 C1301 CEHAT221M25
 C1203,C1207,C1210,C1220,C1223 CEHAT470M25
 C1238,C1239 CEHAT470M25
 C1235 CKSRYB102K50

C1213,C1225,C1240,C1241,C1243 CKSRYB104K16
 C1202,C1205,C1206,C1212,C1302 CKSRYF104Z50

RESISTORS

R1230 (2.2/ 1/2W) ACN1166
 R1208 (10/ 1/2W) ACN1174
 R1304 (560/ 1/2W) ACN1195
 R1305 (1k/ 1/2W) ACN1198
 R1301,R1302,R1314 RS1/10S122J

R1226,R1251 RS1MMF361J
 R1235,R1236 RS2MMF121J
 Other Resistors RS1/16S###J

OTHERS

KN1201-KN1205,KN1208,KN1214 ANK-142
 KN1210-KN1212 (GROUND PLATE) ANK-142
 CN1201 12P CONNECTOR B12B-EH

[D-D CON BLOCK]**SEMICONDUCTORS**

IC1404 AN1431M
 IC1402 MIP161
 IC1401,IC1403 TLP181(P-GR)
 Q1401 2SA1037K
 Q1402 2SC2412K

D1407,D1408 EC11FS2
 D1404 EC8FS6
 D1401,D1403 UDZS5.6B

COILS AND FILTERS

L1401 ATH1110
 T1401 ATK1153

CAPACITORS

C1401,C1402 (22/315V) ACH1361
 C1404 CEHAT101M16
 C1405 CEHAT101M25
 C1409 CEHAT331M16
 C1403,C1407,C1408,C1411 CKSRYB104K16

C1406 CKSRYF104Z50

RESISTORS

R1405,R1406,R1408-R1410,R1414 RS1/10S3602F
 R1420 RS1/16S1101F
 R1403 RS1/16S2702F
 R1401,R1404 RS1/16S4701F
 R1417 RS1/16S7500F

VR1401 (1k) CCP1390
 Other Resistors RS1/16S###J

PANEL SENSOR ASSY**SEMICONDUCTORS**

IC1072 MM1522XU
 IC1071 MM3012XN

CAPACITORS

C1075 ACH1357
 C1074 CKSRYB103K50
 C1071,C1076 CKSRYB104K16
 C1072,C1073 CKSRYF105Z10

RESISTORS

R1076,R1078 RS1/16S1001F
 Other Resistors RS1/16S###J

43 Y DRIVE ASSY**OTHERS**

2002 CARD SPACER AEC1957
 2001 DRIVE SIRICON SHEET A AEH1062
 2001 PLATE Y ANG2557
 2001 DRIVE HEATSINK A ANH1613
 2001 SCREW BMZ30P080FZK

2002 SCREW PMB30P060FNI

[Y LOGIC BLOCK]**SEMICONDUCTORS**

IC2002 TC74ACT540FT
 IC2001,IC2003 TC74ACT541FT
 IC2005 TC74VHC08FT
 IC2004 TC74VHC541FT
 Q2001 DTC124EK

CAPACITORS

C2001 CEHAT470M16
 C2010,C2011 CKSRYB104K16
 C2002-C2006 CKSRYF104Z50

RESISTORS

R2018,R2019 RAB4C102J
 R2002,R2004,R2013-R2015 RAB4C470J
 R2005,R2006,R2012,R2016,R2017 RAB4C472J
 Other Resistors RS1/16S###J

OTHERS

CN2001 50P CONNECTOR AKM1201

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
[Y RESONANCE BLOCK]				
SEMICONDUCTORS				
IC2211	BA10393F	L2306,L2307	ATH1112	A
IC2201,IC2202	TND506MD	L2304	LFEA100J	
Q2213	2SC2412K	L2308	LFEA101J	
Q2202,Q2203,Q2211,Q2212,Q2214	2SK3560	L2301,L2302,L2305	LFEA470J	
Q2205,Q2206,Q2208,Q2209	2SK3723			
Q2201,Q2204,Q2207,Q2210	CPH5506	CAPACITORS		
D2209,D2223	1SS302	C2309-C2312,C2326,C2327	ACE1163	
D2228,D2229	1SS355	C2329,C2330 (1.5/300V)	ACE1163	
D2202-D2205,D2207,D2208	EC11FS4	C2314 (0.047/250V)	ACE1165	
D2213,D2214,D2216-D2219,D2222	EC11FS4	C2302 (0.1/630V)	ACG1092	
		C2316,C2331 (300/280V)	ACH1359	
D2226,D2227	EC11FS4			
D2201,D2206,D2211,D2215,D2220	TCU20A30	C2303 (22/315V)	ACH1361	
D2225	TCU20A30	C2336 (220/100V)	ACH1393	
D2210,D2224	UDZS16B	C2306,C2334	CEHAT221M25	
		C2308,C2324,C2339,C2340	CEHAT470M16	B
		C2304,C2320,C2338	CEHAT470M25	
		C2305,C2322,C2323,C2325,C2333	CKSRYB104K16	
		C2341	CKSRYB104K16	
		C2301,C2307,C2328	CKSRYF104Z50	
COILS AND FILTERS				
L2204	ATH1119	RESISTORS		
L2202	ATH1133	R2332 (2.2, 1/2W)	ACN1166	
L2203,L2205	ATH1134	R2309	RS1MMF132J	
L2201	LFEA470J	R2310,R2311	RS1MMF472J	
		R2312-R2314,R2322,R2323	RS3LMF100J	
		R2348,R2352,R2358,R2359	RS3LMF1R8J	
		Other Resistors	RS1/16S###J	C
CAPACITORS				
C2212,C2213,C2226,C2227 (3.3/250V)	ACE1168	OTHERS		
C2211,C2224 (100p/630V)	ACG1104	KN2301-KN2305,KN2310,KN2312	ANK-142	
C2210,C2223 (0.1/630V)	ACG1108	KN2314,KN2316 (GROUND PLATE)	ANK-142	
C2202,C2205,C2216,C2217	CCSRCH331J50	CN2301 11P CONNECTOR	B11B-EH	
C2230,C2232,C2233,C2235	CKSRYB104K16			
C2203,C2218	CKSRYB105K6R3			
C2201,C2208,C2215,C2219	CKSYB105K25			
RESISTORS				
R2240,R2241	RS1/10S1003F	[Y SCAN BLOCK]		
R2244-R2247	RS1/10S100J	SEMICONDUCTORS		
R2204,R2205,R2220,R2221,R2253	RS1/10S2R2J	IC2101,IC2103-IC2106,IC2108,IC2109	HCPL-M611	D
R2234	RS1/16S1202F	IC2102,IC2107	TC74ACT540FT	
R2235	RS1/16S3301F			
R2233	RS1/16S5601F	COILS AND FILTERS		
R2242	RS1/16S8201F	L2101-L2103	LFEA100J	
R2215,R2230	RS1MMF101J			
VR2201-VR2204 (1k)	CCP1390	CAPACITORS		
Other Resistors	RS1/16S###J	C2104,C2111 (47/160V)	ACH1392	
		C2101,C2107,C2113	CEHAT221M16	
		C2102,C2103,C2105,C2106	CKSRYB104K16	
		C2108-C2110,C2112,C2114	CKSRYB104K16	
[Y SUS BLOCK]				
SEMICONDUCTORS				
IC2302,IC2308	HCPL-M611	RESISTORS		
IC2305	NJM2872F05	R2121,R2128	RAB4C472J	E
IC2303,IC2307	STK795-511	Other Resistors	RS1/16S###J	
IC2301,IC2304,IC2309	TND301S			
Q2310	2SC2412K			
Q2303,Q2307	2SD1898	OTHERS		
Q2301	2SJ522	CN2101,CN2102 15P CONNECTOR	AKM1200	
Q2302,Q2308,Q2312	2SK3325-Z			
Q2309	HN1B04FU	[Y D-D CON BLOCK]		
D2302	1SS302	SEMICONDUCTORS		
		IC2410-IC2412	AN1431M	F
D2319	EC10QS04	IC2406	BA10358F	
D2305	EC11FS4	IC2401	MIP0223SC	
D2301	UDZS16B	IC2402-IC2405,IC2407-IC2409	TLP181(P-GR)	
D2306,D2318	UDZS5.6B	Q2402,Q2407	2SA1037K	
		Q2410	2SA1163	
		Q2417	2SA1535	
		Q2411-Q2414,Q2416	2SC2412K	
COILS AND FILTERS				

Mark No.	Description	Part No.
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Q2405		2SC2713
Q2403		2SD1664

A	Q2401,Q2404 Q2415 D2430 D2410,D2419,D2436 D2409,D2418	2SD1898 HN1C01FU 1SS301 1SS302 1SS355
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	D2404-D2407 D2403,D2414 D2402 D2427 D2401	EC11FS2 EC11FS4 EC8FS6 RD91PA U1ZB330
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B	D2412,D2413,D2422 D2425,D2426 D2415 D2432 D2423,D2431	UDZS15B UDZS27B UDZS33B UDZS4.3B UDZS5.6B
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COILS AND FILTERS

	T2402 T2403 T2401 L2402 L2401	ATK1156 ATK1157 ATK1158 LFEA100J LFEA101J
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C	L2403	LFEA470J
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CAPACITORS

	C2406 (100/160V) C2401 (22/315V) C2427 C2403 C2405,C2407,C2417	ACH1360 ACH1361 CEHAT100M50 CEHAT101M16 CEHAT101M25
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D	C2414 C2410 C2411 C2420 C2409,C2419	CEHAT221M16 CEHAT221M25 CEHAT331M25 CEHAT470M2A CKSRYB103K50
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	C2402,C2412,C2413,C2423,C2425 C2431,C2432,C2434-C2436 C2441-C2443 C2415,C2421,C2428 C2404,C2408,C2416,C2418,C2426	CKSRYB104K16 CKSRYB104K16 CKSRYB104K16 CKSRYB105K6R3 CKSRYF104Z50
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	C2429	CKSRYF104Z50
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RESISTORS

E	R2429 (180k,1/2W) R2435,R2439 R2402-R2404 R2442 R2468	ACN1225 RS1/10S2202F RS1/10S3902F RS1/16S1201F RS1/16S1202F
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	R2424 R2420,R2427,R2438 R2467 R2457-R2460 R2506	RS1/16S2001F RS1/16S2201F RS1/16S3301F RS1/16S4701F RS3LMF151J
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	VR2401,VR2402 (1k) Other Resistors	CCP1390 RS1/16S###J
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OTHERS

F	2401 HEATSINK 2401 SCREW	ANH1614 BBZ30P080FZK
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Mark No.	Description	Part No.
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PCB PARTS LIST for Common models (PDP-5004, PDP-5014 and PDP-4304, PDP-4314 models)

RGB ASSY

[REG BLOCK]

SEMICONDUCTORS

	IC7411	BD6522F
△	IC7412	M5291FP
	IC7402	MM1522XU
	IC7401	MM3012XN
	IC7404	NJM12904V

△	IC7408, IC7409	PQ05DZ11
△	IC7405, IC7410	PQ20WZ11
△	IC7406, IC7407	PQ3DZ13
	IC7403	TC74VHC08FT
	Q7405	2SA1586

	Q7407, Q7408, Q7410, Q7411	HN1A01FU
	Q7404	HN1C01FU
	Q7401	RN1901
	Q7409	RN1902
	D7408	1SS301

	D7407, D7409-D7414 D7415, D7416	1SS355 EC11FS2
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COILS AND FILTERS

	L7401	ATH1125
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CAPACITORS

	C7408	ACH1357
	C7414, C7419, C7434, C7437 (100/25V)	ACH1374
	C7447, C7450 (47microF/16V)	ACH1391
	C7416, C7423, C7424, C7430 (100microF/16V)	ACH1394
	C7418, C7421, C7426, C7432, C7445 (100microF/6.3V)	ACH1396
	C7452 (100microF/6.3V)	ACH1396
	C7403 (22microF/16V)	ACH1400
	C7428, C7429, C7448	CCSRCH221J50
	C7440, C7459-C7466	CKSRYB102K50
	C7407, C7409, C7453-C7455	CKSRYB103K50

	C7457, C7458	CKSRYB103K50
	C7436	CKSRYB104K16
	C7446	CKSRYB821K50
	C7413, C7435	CKSRYF104Z50
	C7402, C7410	CKSRYF105Z10

	C7404-C7406, C7411, C7412, C7415	CKSSYF104Z16
	C7417, C7420, C7422, C7425, C7427	CKSSYF104Z16
	C7431, C7433, C7439, C7441-C7444	CKSSYF104Z16
	C7449, C7451	CKSSYF104Z16

RESISTORS

	R7402, R7405, R7417	RAB4CQ101J
	R7426	RAB4CQ103J
	R7480	RS1/10S1R5J
	R7412, R7420, R7486	RS1/16S1001F
	R7437, R7439, R7467, R7469, R7476	RS1/16S1002F

	R7461	RS1/16S1501F
	R7422	RS1/16S1800F
	R7440, R7445	RS1/16S2201F
	R7477	RS1/16S2202F
	R7484	RS1/16S3301F

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
R7438	RS1/16S4700F		OTHERS	
R7465	RS1/16S4702F		K6401-K6406 TEST PIN	AKX9002
R7460	RS1/16S6201F		CN6402 6P PLUG	KM200NA6
R7447	RS1/16S7500F			
R7478	RS1/16S8201F			
Other Resistors	RS1/16S###J			
OTHERS			[MAIN AD BLOCK]	
CN7405 12P PLUG	AKM1203		SEMICONDUCTORS	
CN7401 15P PLUG	AKM1232		IC6001	CXA3516AR
CN7410 50P PLUG	AKM1270		IC6002-IC6008	TC74LCX541FT
			Q6001	2SC4116
			D6001	1SS355
			COILS AND FILTERS	
			L6001	LCTAWR68J2520
[MAIN LPF BLOCK]			CAPACITORS	
SEMICONDUCTORS			C6001, C6005, C6010, C6028, C6041	ACH1396
IC6402	AN5870SB		C6043, C6051, C6054 (100microF/6.3V)	ACH1396
IC6404	BA7078AF		C6020	CCSRCH101J50
IC6403	BA7657F		C6011	CCSRCH220J50
IC6401	SM5301BS		C6017	CCSRCH331J50
IC6407	TC74VHC08FT			
IC6405	TC74VHC125FT		C6003, C6018, C6024, C6025	CKSRYB105K6R3
Q6419-Q6421	2SA1586		C6033, C6034, C6037, C6038, C6045	CKSRYB105K6R3
Q6407, Q6417	DTC124EUA		C6062-C6068	CKSRYB471K50
Q6402-Q6406, Q6408, Q6410, Q6412	HN1B04FU		C6002, C6004, C6006-C6009	CKSSYF104Z16
D6404	1SS302		C6012-C6016, C6021-C6023	CKSSYF104Z16
COILS AND FILTERS			C6026, C6027, C6029-C6032	CKSSYF104Z16
L6401	LCTAW4R7J2520		C6035, C6036, C6039, C6040, C6042	CKSSYF104Z16
L6402	LCTAWR68J2520		C6044, C6046-C6050, C6052, C6053	CKSSYF104Z16
			C6055-C6061	CKSSYF104Z16
CAPACITORS			RESISTORS	
C6409, C6436, C6437, C6462, C6469	ACH1357		R6001, R6004, R6013, R6014	RAB4CQ100J
C6402, C6405, C6406, C6427, C6428	ACH1391		R6020, R6021, R6024, R6027, R6033	RAB4CQ100J
C6431 (47microF/16V)	ACH1391		R6038, R6044, R6054	RAB4CQ100J
C6416, C6417, C6424 (100microF/16V)	ACH1394		R6073-R6085	RAB4CQ330J
C6433 (10microF/16V)	ACH1399		R6023	RN1/16SE3001D
C6439 (22microF/16V)	ACH1400		R6018	RS1/16S2201F
C6445	CCSRCH151J50		R6016	RS1/16S2701F
C6435, C6467, C6468	CCSRCH470J50		R6019	RS1/16S3301F
C6401, C6403, C6404, C6414, C6415	CKSRYB103K50		Other Resistors	RS1/16S###J
C6423, C6429, C6430, C6432, C6438	CKSRYB103K50			
C6446, C6449, C6451, C6454, C6456	CKSRYB103K50		OTHERS	
C6459, C6461, C6470-C6476	CKSRYB103K50		K6001-K6007, K6010-K6013 TEST PIN	AKX9002
C6463	CKSRYB104K25			
C6408, C6411, C6412, C6421, C6455	CKSRYB105K6R3			
C6457, C6460	CKSRYB105K6R3			
			[SUB LPF & AD BLOCK]	
C6458	CKSRYB471K50		SEMICONDUCTORS	
C6443	CKSRYB474K10		IC6602	AD9883AKST-110
C6442	CKSRYB562K50		IC6604	BA7078AF
C6407, C6410, C6413, C6418-C6420	CKSSYF104Z16		IC6601	SM5301BS
C6425, C6426, C6434, C6440, C6441	CKSSYF104Z16		IC6608-IC6614	TC74LCX541FT
			IC6605	TC74VHC08FT
C6444, C6447, C6448, C6450	CKSSYF104Z16		IC6603, IC6607	TC74VHC125FT
C6452, C6453	CKSSYF104Z16		Q6603, Q6604	DTC124EUA
			Q6605	HN1B04FU
RESISTORS			COILS AND FILTERS	
R6489	RAB4CQ470J		F6601	ATF1194
R6422	RS1/16S1101F		L6701	LCTAWR68J2520
R6526-R6528	RS1/16S2200F			
R6428, R6429	RS1/16S3000F			
R6547-R6549	RS1/16S75R0F			
Other Resistors	RS1/16S###J		CAPACITORS	
			C6635-C6637, C6640	ACH1357
			C6633 (10microF/16V)	ACH1399
			C6644	CCSRCH151J50
			C6638	CKSRYB103K50

Mark No. Description**Part No.**

C6604, C6624

CKSRYB104K16

C6648
C6608, C6611, C6612, C6621
C6630-C6632
C6646, C6656-C6661
C6609, C6614, C6623

CKSRYB104K25
CKSRYB105K6R3
CKSRYB105K6R3
CKSRYB471K50
CKSRYB473K16

C6642
C6641
C6602
C6601
C6605-C6607, C6610, C6613

CKSRYB474K10
CKSRYB562K50
CKSRYB822K50
CKSRYB823K16
CKSSYF104Z16

C6615-C6620, C6625-C6629, C6634
C6639, C6643, C6645, C6647
C6649-C6655

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

RESISTORS

R6699-R6710, R6723-R6728
R6729-R6734
R6608, R6613, R6621, R6627
R6643, R6644, R6667-R6672
R6676-R6678, R6681-R6685

RAB4CQ0R0J
RAB4CQ101J
RAB4CQ470J
RAB4CQ470J
RAB4CQ470J

R6612, R6619, R6620
R6625
R6607, R6611, R6626
R6601
Other Resistors

RS1/16S1000F
RS1/16S1101F
RS1/16S1300F
RS1/16S2701F
RS1/16S###J

OTHERS

K6601-K6607 TEST PIN

AKX9002

**[BUS SW1 BLOCK]
SEMICONDUCTORS**

IC5701

PD6435A

CAPACITORS

C5701 (47microF/16V)
C5709, C5710
C5721-C5737
C5702-C5708, C5711, C5712
C5714-C5718

ACH1391
CCSRCH150J50
CKSRYB103K50
CKSSYF104Z16
CKSSYF104Z16

RESISTORS

R5703-R5706, R5708-R5712, R5714
R5717, R5721, R5735, R5739-R5750
R5755, R5756, R5762, R5763
R5768-R5771
R5728-R5734, R5782-R5787

RAB4CQ100J
RAB4CQ100J
RAB4CQ100J
RAB4CQ100J
RAB4CQ103J

Other Resistors

RS1/16S###J

OTHERS

CN5701 120P PCI BUS SOCKET
X5701 CERAMIC RESONATOR

AKP1220
ASS1169

**[BUS SW2 BLOCK]
SEMICONDUCTORS**

IC5801

PD6435A

CAPACITORS

C5801 (47microF/16V)
C5809, C5810
C5802-C5808, C5811, C5812
C5814-C5818

ACH1391
CCSRCH150J50
CKSSYF104Z16
CKSSYF104Z16

Mark No. Description**Part No.****RESISTORS**

R5816-R5825, R5827, R5835, R5849
R5852, R5854, R5856, R5858, R5860
R5868-R5871, R5877
R5802-R5808, R5812-R5814, R5831
R5837, R5844, R5883

RAB4CQ100J
RAB4CQ100J
RAB4CQ100J
RAB4CQ103J
RAB4CQ103J

R5845, R5850, R5851, R5853, R5855
R5857, R5859, R5861-R5863, R5876
Other Resistors

RAB4CQ470J
RAB4CQ470J
RS1/16S###J

OTHERS

X5801 CERAMIC RESONATOR

ASS1169

**[IC2 BLOCK]
SEMICONDUCTORS**

IC7001, IC7002
IC7004
IC7003

IC42S32200-7TG
PE5362A
TC74LCX125FT

COILS AND FILTERS

F7001, F7002 EMI FILTER

ATF1194

CAPACITORS

C7029, C7041 (100microF/6.3V)
C7065
C7066-C7068
C7001-C7024, C7026-C7028
C7032-C7040, C7042-C7063

ACH1396
CCSRCH100D50
CCSRCH221J50
CKSSYF104Z16
CKSSYF104Z16

C7031

DCH1165

RESISTORS

R7034
R7027, R7037
R7023, R7035, R7036
R7001, R7008
R7002- R7004, R7024

RAB4CQ470J
RS1/16SS0R0J
RS1/16SS101J
RS1/16SS102J
RS1/16SS103J

R7006, R7009, R7012
R7011
Other Resistors

RS1/16SS220J
RS1/16SS820J
RS1/16S###J

OTHERS

K7001-K7003 TEST PIN
X7001 (85MHz)

AKX9002
ASS1174

**[IC3 BLOCK]
SEMICONDUCTORS**

IC7102
IC7101

24LC02B(I)SN
PD5855A

COILS AND FILTERS

F7101, F7102

ATF1194

CAPACITORS

C7103, C7120, C7138 (100microF/6.3V)
C7141
C7101, C7102, C7104-C7119
C7121-C7137, C7139, C7140, C7142

ACH1396
CCSRCH100D50
CKSSYF104Z16
CKSSYF104Z16

RESISTORS

R7102, R7105-R7108, R7110, R7111
R7128, R7129, R7132, R7133
R7136, R7137
R7154
R7125, R7142

RAB4CQ330J
RAB4CQ330J
RAB4CQ330J
RAB4CQ470J
RS1/16SS0R0J

5	6	7	8
Mark No.	Description	Part No.	Mark No.
R7120, R7150, R7151	RS1/16SS101J	R7228, R7230, R7249, R7251, R7262	RS1/16SS470J
R7101	RS1/16SS103J	R7263, R7278, R7279, R7310, R7315	RS1/16SS470J
R7103, R7104, R7112, R7114, R7122	RS1/16SS330J	R7316, R7318, R7339	RS1/16SS470J
R7126, R7127, R7130, R7131, R7134	RS1/16SS330J	Other Resistors	RS1/16S###J
R7135, R7138, R7139, R7152	RS1/16SS330J		
R7149	RS1/16SS472J		
Other Resistors	RS1/16S###J		
OTHERS		OTHERS	
CN7101 114P FFC CONNECTOR	AKM1216	CN7201 8P PLUG	AKM1225
K7101, K7102 TEST PIN	AKX9002	X7201 CERAMIC RESONATOR	ASS1170
		CN7204 3P TOP POST	B3B-EH
[IC3 FLASH BLOCK]		AV I/O ASSY	
SEMICONDUCTORS		[AV I/O BLOCK]	
IC7152	MBM29PL3200BE70PFV	SEMICONDUCTORS	
CAPACITORS		IC7609	24LCS21A
C7152, C7153, C7155-C7158, C7160	CKSSYF104Z16	IC7610	AN5870SB
C7162	CKSSYF104Z16	IC7602, IC7606, IC7607, IC7613	BA4558F-HT
RESISTORS		IC7603	BD3869AF
R7155- R7160	RS1/16SS472J	IC7604	NJM78L09UA
[MAIN UCOM BLOCK]		IC7612	PCM1742KE
SEMICONDUCTORS		IC7601	TC4052BFT
IC7205	24LC128(I)SN	IC7611	TC74VHCT541AFT
IC7201, IC7204	74VHCT00AMTC	Q7602, Q7603, Q7606, Q7611, Q7612	2SA1586
IC7207	MB91F355APMTGE1	Q7604, Q7605, Q7610	2SC4116
IC7210	PST3612UR	Q7607, Q7608	DTC124EUA
IC7203, IC7206	PST3628UR	Q7601	RN1902
IC7209	TC74VHC08FT	Q7609	SM6K2
IC7202	TC74VHC125FT	D7601, D7614	1SS301
IC7208	TC74VHCT541AFT	D7606-D7608, D7610-D7613	1SS302
Q7201	2SJ461A	D7619	1SS355
Q7202	DTC124EUA	D7602, D7603, D7605, D7609	UDZS5R6(B)
D7202	1SS355	D7604	UDZS6R8(B)
D7203	SML-310MT		
CAPACITORS		COILS AND FILTERS	
C7205, C7236 (47microF/16V)	ACH1391	F7601	ATF1194
C7143, C7203	CCSRCH220J50		
C7213, C7218	CCSRCH7R0D50	CAPACITORS	
C7248-C7249	CKSRYB102K50	C7659, C7669	CCSRCH181J50
C7235, C7245	CKSRYB103K50	C7673, C7674	CCSRCH220J50
C7226, C7237	CKSRYB104K16	C7658, C7672	CCSRCH681J50
C7230, C7242	CKSRYB104K25	C7676, C7678, C7680, C7682	CCSSCH221J50
C7216	CKSRYB472K50	C7646, C7651-C7653	CEHAT100M50
C7201, C7202, C7209-C7212	CKSSYF104Z16	C7654	CEHAT101M10
C7214, C7215, C7219-C7225	CKSSYF104Z16	C7665, C7670	CEHAT101M16
C7227-C7229, C7232-C7234, C7238	CKSSYF104Z16	C7623, C7648	CEHAT220M50
C7240, C7241, C7243, C7244	CKSSYF104Z16	C7638, C7643, C7645, C7705	CEHAT221M6R3
C7246, C7247	CKSSYF104Z16	C7714, C7716, C7718	CEHAT331M10
RESISTORS		C7619, C7635, C7637, C7697	CEHAT470M16
R7231	RAB4CQ0R0J	C7601, C7602, C7609, C7610, C7614	CKSQYB225K10
R7229	RAB4CQ101J	C7616, C7629, C7631, C7632, C7639	CKSQYB225K10
R7256	RAB4CQ103J	C7627, C7628, C7640, C7650	CKSRYB102K50
R7218, R7219, R7284-R7286, R7301	RAB4CQ470J	C7660, C7661, C7666, C7683, C7685	CKSRYB103K50
R7309, R7311-R7314, R7317	RAB4CQ470J	C7687, C7712, C7713, C7715, C7717	CKSRYB103K50
R7201	RAB4CQ472J	C7603, C7620, C7662, C7663, C7667	CKSRYB105K10
R7212, R7232	RS1/16S1202F	C7684, C7686, C7688	CKSRYB105K10
R7208, R7209, R7216, R7217	RS1/16SS0R0J	C7633, C7656	CKSRYB471K50
R7207, R7221- R7223, R7225, R7226	RS1/16SS470J	C7675, C7677, C7679, C7681	CKSSYB102K50
		C7615, C7617, C7618, C7624-C7626	CKSSYF104Z16
		C7630, C7634, C7636, C7641, C7642	CKSSYF104Z16
		C7644, C7649, C7655, C7657, C7664	CKSSYF104Z16
		C7668, C7671, C7704, C7706	CKSSYF104Z16
		C7708-C7711	CKSSYF104Z16

Mark No. Description**Part No.****Mark No. Description****Part No.****RESISTORS**

R7653, R7654, R7673, R7674
R7712, R7725
R7699-R7701
R7709-R7711
Other Resistors

RS1/16S1002F
RS1/16S2201F
RS1/16S27R0F
RS1/16S75R0F
RS1/16S###J

COILS AND FILTERS

F6804-F6806
F6807, F6808
L6804

ATF1194
ATF1211
ATH1184

CAPACITORS

C6923
C6864, C6865, C6867, C6869
C6873, C6874, C6879, C6881, C6884
C6886, C6888, C6892, C6908, C6910
C6912, C6914, C6917, C6920

CCSRCH221J50
CCSSCH101J50
CCSSCH101J50
CCSSCH101J50
CCSSCH101J50

C6921
C6891
C6860
C6823, C6825
C6902

CCSSCH221J50
CEHAT100M50
CEHAT101M10
CEHAT220M50
CEHAT221M16

C6878, C6916, C6922
C6877
C6905
C6859, C6861, C6875, C6896
C6903, C6904, C6906

CEHAT221M6R3
CEHAT470M16
CEHAT471M10
CKSRYB471K50
CKSRYF104Z16

C6893
C6890
C6824, C6841, C6842, C6858
C6862, C6863, C6866, C6868
C6870-C6872, C6876, C6880

CKSSYB473K16
CKSSYF103Z50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

C6882, C6883, C6885, C6887, C6889
C6895, C6907, C6909, C6911, C6913
C6915, C6918, C6919
C6894

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
DCH1161

RESISTORS

R6896, R6913, R6926, R6933, R6935
R6937, R6938, R6953, R6960
R6897, R6914, R6927, R6934, R6936
R6954, R6968
R6831

RAB4CQ470J
RAB4CQ470J
RAB4CQ680J
RAB4CQ680J
RD1/2LMF1R0J

R6932
R6952
R6962-R6967
R6950
Other Resistors

RS1/16S3900F
RS1/16S3901F
RS1/16S75R0F
RS1/16S91R0F
RS1/16S###J

OTHERS

JA6802 HDMI CONNECTOR

AKP1232

Other Resistors

RESISTORS

Other Resistors

RS1/16S###J

AUDIO AMP ASSY**SEMICONDUCTORS**

IC5002
⚠ IC5003
⚠ IC5004
⚠ IC5001
Q5005, Q5007, Q5008

BA4558F-HT
LA4625
PQ12DZ11
SI-8120S
2SA1586

Q5001, Q5009
Q5011, Q5012
Q5013

2SC4116
2SD2114K
DTA124EUA

OTHERS

JA7606 15P D-SUB SOCKET
K7601, K7602 TEST PIN
JA7601, JA7602 JACK
CN7601 PLUG(15P)

AKP1241
AKX9002
DKB1031
KM200NA15

[IF UCOM BLOCK]**SEMICONDUCTORS**

IC8705
IC8702
IC8703
IC8701
IC8704

24LC01B
HD64F3687FP
PST9230N
TC74VHC08FT
TC7W126FU

Q8701
Q8708
Q8702

2SJ461A
DTA124EUA
DTC124EUA

COILS AND FILTERS

L8703
L8702

LCTAW221J3225
LCTAWR68J2520

CAPACITORS

C8706, C8707
C8708
C8704, C8718
C8717, C8720
C8722, C8724

CCSRCH120J50
CEHAT470M16
CEHAT471M6R3
CKSRYB103K50
CKSRYB471K50

C8709
C8701-C8703, C8705, C8711-C8713
C8716, C8719, C8721, C8725

CKSRYB472K50
CKSSYF104Z16
CKSSYF104Z16

RESISTORS

R8719, R8720, R8723, R8724, R8726
R8704
R8736
Other Resistors

RAB4C101J
RAB4C103J
RS1/16S1302F
RS1/16S###J

OTHERS

CN8701 PLUG 8-P
K8701-K8703 TEST PIN
X8702 CERAMIC RESONATOR
X8701 CRYSTAL OSCILLATOR
CN8704 PLUG(6P)

AKM1225
AKX9002
ASS1168
ASS1172
KM200NA6

[HDMI BLOCK]**SEMICONDUCTORS**

IC6806
IC6809
IC6810
IC6802
IC6804, IC6805, IC6807, IC6811

24LC02B(I)SN
SI-8033JD
SII9993CTG100
TC74HC4538AFT
TC74LCX541FT

Q6813
Q6816
D6806, D6809, D6813
D6810, D6812
D6816

RN1902
SM6K2
1SS301
1SS302
D1FM3

D6811

UDZS6R8(B)

Mark No. **Description** **Part No.**

COMM SLOT I/F ASSY

SEMICONDUCTORS

IC8901 TC74VHC00FT
Q8902 2SC4116
D8901, D8902 1SS355

COILS AND FILTERS

L8901 LCTAW221J3225

CAPACITORS

C8902 CKSRYB104K25
C8901 CKSSYF104Z16

RESISTORS

Other Resistors RS1/16S###J

OTHERS

CN8904 EDGE CARD CONN AKP1252
CN8902 L-PLUG (10P) KM200NA10L
CN8903 L-PLUG (11P) KM200NA11L
CN8905 L-PLUG (6P) KM200NA6L

LED ASSY

SEMICONDUCTORS

Q9652 DTC143EUA
Q9651 RN2901
D9652 SML-310MT
D9651 SML-311UT

CAPACITORS

C9652-C9655 CCSRCH101J50
C9656 CKSRYB103K50
C9651 CKSSYF104Z16

RESISTORS

Other Resistors RS1/16S###J

COMM SLOT ASSY

SEMICONDUCTORS

IC9451 SP3232ECY
IC9454 TC74VHC00FT
IC9455, IC9456 TC74VHC125FT

CAPACITORS

C9455 CEJQ470M6R3
C9452, C9473, C9475, C9477 CKSRYB471K50
C9451, C9453, C9454, C9457, C9458 CKSSYF104Z16
C9472, C9474, C9476 CKSSYF104Z16

RESISTORS

Other Resistors RS1/16S###J

OTHERS

JA9453 9P D-SUB SOCKET AKP1240
3214 SLOT PANEL S(F) ANG2695
3526 HEXAGON HEADED SCREW BBA1051
3500 SCREW BMZ30P060FZK
9451 SCREW TERMINAL VNE1949

KEY CONTROL ASSY

SEMICONDUCTORS

IC9001 PD5719A
Q9001 2SC4116
D9001-D9003, D9005-D9007 1SS302

Mark No. **Description** **Part No.**

D9004 1SS355

COILS AND FILTERS

F9001-F9006 DTL1069

CAPACITORS

C9006-C9008 CCSRCH101J50
C9005 CEAT470M16
C9001-C9003 CKSRYB472K50
C9004 CKSSYF104Z16

RESISTORS

R9008 RAB4C182J
Other Resistors RS1/16S###J

OTHERS

CN9002 6P FFC CONNECTOR AKM1208
X9001 CERALOCK ASS1162
CN9001 L-PLUG (3P) KM200NA3L

FRONT KEY ASSY

SWITCHES AND RELAYS

S9401-S9406 ASG1088

OTHERS

CN9400 6P FFC CONNECTOR AKM1208

DIGITAL VIDEO ASSY

[DIGITAL IF BLOCK]

COILS AND FILTERS

F5001, F5002, F5004, F5005 ATF1194

RESISTORS

R5101-R5115, R5131 RAB4C470J
Other Resistors RS1/16S###J

OTHERS

CN5001 114P FFC CONNECTOR AKM1216
CN5002 PH 10P CONNECTOR AKM1281
K5002-K5004, K5007 TEST PIN AKX9002

[MODULE UCOM BLOCK]

SEMICONDUCTORS

IC5206 24LC04B(I)SN
IC5201 M30626FHPGP-P
IC5205 PST3628UR
IC5208 TC74VHC08FT
IC5213 TC74VHC123AFT

IC5214, IC5215
IC5211, IC5212
IC5209
Q5201
D5207-D5212

TC74VHC32FT
TC74VHC541FT
TC7W126FU
2SJ461A
1SS301

D5217, D5218
D5201

1SS355
SML-310LT

SWITCHES

S5201 ASH1047

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
<u>CAPACITORS</u>				
C5213, C5225	ACH1357	C5401, C5413, C5417, C5424 (100microF/16V)	ACH1396	
C5206, C5223, C5231, C5245-C5262	CKSRYB102K50	C5434, C5435	CKSRYB102K50	A
C5264	CKSRYB102K50	C5402-C5412, C5414-C5416	CKSSYF104Z16	
C5232	CKSRYB104K16	C5418-C5423, C5425-C5431	CKSSYF104Z16	
C5263	CKSRYB104K25			
C5230	CKSRYB105K6R3	<u>RESISTORS</u>		
C5205	CKSRYB472K50	R5406, R5421	RAB4C101J	
C5201-C5204, C5208, C5210-C5212	CKSSYF104Z16	R5408-R5413, R5415, R5416, R5419	RAB4C220J	
C5218, C5224, C5226, C5227	CKSSYF104Z16	R5422	RAB4C220J	
C5243, C5244	CKSSYF104Z16	R5405	RS1/16S5601F	
		Other Resistors	RS1/16S###J	
<u>RESISTORS</u>		<u>OTHERS</u>		
R5209, R5211, R5212, R5235	RAB4C101J	K5401 TEST PIN	AKX9002	B
R5254, R5255, R5265, R5266	RAB4C101J			
R5205	RAB4C103J			
R5270, R5271	RAB4C472J	[ADDRESS CN BLOCK]		
R5256, R5257	RAB4C474J	<u>RESISTORS</u>		
Other Resistors	RS1/16S###J	Other Resistors	RS1/16S###J	
<u>OTHERS</u>		<u>OTHERS</u>		
CN5201 8P PLUG	AKM1225	CN5521 50P CONNECTOR	AKM1201	
CN5202 PH 3P CONNECTOR	AKM1274	⚠ CN5501-CN5508 40P CONNECTOR	AKM1217	
K5201 TEST PIN	AKX9002	CN5511 30P CONNECTOR	AKM1218	
⚠ X5201 (16MHz)	ASS1178			
[PANEL FLASH BLOCK]		[DIGITAL DD CON BLOCK]		
<u>SEMICONDUCTORS</u>		<u>SEMICONDUCTORS</u>		C
IC5305	MBM29PL160BD-75PFTN	⚠ IC5602	PQ05DZ11	
IC5303	PST3612UR	⚠ IC5603	PQ09DZ11	
IC5301	PST3628UR	Q5601, Q5603	HN1C01FU	
IC5302	TC74VHC08FT	Q5605	RN1901	
Q5301	RN1901	D5602, D5603, D5609, D5610	1SS355	
D5301-D5310	1SS302	D5601	HZU2.2B	
		D5604	UDZS5.1B	
<u>CAPACITORS</u>		<u>CAPACITORS</u>		
C5320	CCSRCH470J50	C5601, C5603, C5607, C5614, C5616 (100microF/16V)	ACH1394	D
C5304, C5307	CKSRYB102K50	C5602, C5604, C5615, C5617	CKSRYB103K50	
C5311, C5314	CKSRYB104K16	C5605, C5606, C5610	CKSSYF104Z16	
C5303, C5306	CKSRYB472K50			
C5301, C5302, C5305, C5309, C5313	CKSSYF104Z16	<u>RESISTORS</u>		
C5316	CKSSYF104Z16	R5601	ACN1162	
<u>RESISTORS</u>		R5627	ACN1168	
R5317, R5318	RAB4C101J	Other Resistors	RS1/16S###J	
Other Resistors	RS1/16S###J	<u>OTHERS</u>		
<u>OTHERS</u>		⚠ CN5602 PH 7P CONNECTOR 7P	AKM1278	
CN5301 15P PLUG	AKM1232	⚠ CN5601 PH 11P CONNECTOR 11P	AKM1282	
K5301 TEST PIN	AKX9002			E
⚠ X5302 (85MHz)	ASS1174	VIDEO SLOT2 ASSY		
⚠ X5301 (60MHz)	ASS1176	[INPUT REG BLOCK]		
[IC4 BLOCK]		<u>SEMICONDUCTORS</u>		
<u>SEMICONDUCTORS</u>		IC7804	BA4558F-HT	
IC5401	PD5856A	⚠ IC8104	PQ015YZ01ZP	
D5401	SML-310LT	⚠ IC8101	PQ05DZ11	
D5402	SML-310MT	⚠ IC8102	PQ09DZ11	
		⚠ IC8103, IC8105	PQ3DZ13	
<u>COILS AND FILTERS</u>		IC7803	TC4052BFT	
F5401, F5403, F5409, F5410	ATF1194	IC7801, IC7802	TK15420M	F
		Q7805	2SC4116	
<u>CAPACITORS</u>		Q7803, Q7804	DTC124EUA	
		Q7806	HN1C01FU	

Mark No. Description**Part No.**

D7801-D7804, D7806-D7814
D8106, D8107
D7815, D8101-D8105

1SS302
1SS302
1SS355

COILS AND FILTERS

F8101-F8103

ATF1194

CAPACITORS

C7850
C8105, C8114, C8125, C8130
C8112
C7808
C8101, C8131

CEHAT100M50
CEHAT101M10
CEHAT101M16
CEHAT220M50
CEHAT221M16

C8122
C7801, C7847, C7848, C8107, C8109
C8116
C7806
C7821, C7825, C7835, C7840, C7851

CEHAT221M6R3
CEHAT470M16
CEHAT470M16
CEHAT471M16
CEHAT4R7M50

C7853, C7855
C7827, C7828, C7842, C7843
C7857, C7858
C7803, C7812, C7814, C7815
C7813, C7816, C7817

CEHAT4R7M50
CKSRYB102K50
CKSRYB102K50
CKSRYB103K50
CKSRYB105K10

C7823, C7824, C7839, C7844, C7854
C7859
C7802, C7807, C7820, C7830
C8102-C8104, C8106, C8108
C8110, C8111, C8113, C8115, C8121

CKSRYB221K50
CKSRYB221K50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

C8124, C8126-C8129, C8132

CKSSYF104Z16

RESISTORS

R8113
R8112
R7808, R7809, R7822, R7823, R7834
R7836, R7837
R8106, R8118

RS1/16S1001F
RS1/16S5100F
RS1/16S75R0F
RS1/16S75R0F
RS1MMF100J

R8108, R8119-R8121
Other Resistors

RS1MMF390J
RS1/16S###J

OTHERS

CN7801 DIN SOCKET
JA7801-JA7803 JACK
JA7804 JACK
JA7805 JACK
7801, 7802 SCREW TERMINAL

AKP1217
DKB1031
VKB1134
VKB1150
VNE1949

**[IC1(Y/C)BLOCK]
SEMICONDUCTORS**

IC6257
IC6255
IC6251-IC6254
IC6256
Q6255

24LC01B
PD0278A
TC7SHU04FU
TC7W126FU
2SJ461A

Q6258
Q6251, Q6253
Q6256, Q6257

DTA124EUA
HN1A01FU
HN1B04FU

COILS AND FILTERS

F6251-F6254
L6251, L6253
L6252, L6254
L6257

ATF1194
LCTAW120J2520
LCTAW150J2520
LCTAW220J2520

Mark No. Description**Part No.**

L6255, L6256

LCTAW330J2520

CAPACITORS

C6305, C6306, C6312, C6313
C6272, C6274, C6288, C6290
C6249, C6250
C6273, C6289
C6295, C6321, C6322, C6327-C6330

CCSRCH120J50
CCSRCH220J50
CCSRCH471J50
CCSRCH680J50
CEHAT101M10

C6324
C6297
C6258, C6260
C6265, C6268, C6282, C6285
C6299, C6300, C6309, C6310, C6316

CEHAT470M16
CKSQYB225K10
CKSRYB102K50
CKSRYB104K16
CKSRYB104K16

C6323
C6201, C6301, C6314
C6251, C6253-C6257, C6259
C6261, C6262, C6267, C6269-C6271
C6275-C6279, C6284, C6286, C6287

CKSRYB104K16
CKSRYB105K10
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

C6291-C6294, C6296, C6298
C6302-C6304, C6307, C6308, C6311
C6315, C6317-C6320, C6325, C6326
C6252

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
DCH1165

RESISTORS

R6251-R6254, R6271, R6275, R6276
R6329-R6331
R6321, R6322, R6334, R6335, R6339
R6273, R6289
R6305, R6314

RAB4CQ100J
RAB4CQ103J
RS1/16S1000F
RS1/16S1001F
RS1/16S1101F

R6291, R6309, R6313
R6323
R6277, R6288
R6264, R6281
R6306, R6307

RS1/16S1301F
RS1/16S2400F
RS1/16S2701F
RS1/16S4700F
RS1/16S8201F

R6255
Other Resistors

RS1/16SS100J
RS1/16S###J

OTHERS

X6251 CRYSTAL OSCILLATOR

ASS1175

**[IC1(CVBS)BLOCK]
SEMICONDUCTORS**

IC6106
IC6107
IC6102-IC6105
Q6103
Q6101, Q6102

IC42S16100-7TG
PD0278A
TC7SHU04FU
DTC124EUA
HN1A01FU

Q6107

HN1B04FU

COILS AND FILTERS

F6102, F6103, F6105, F6106
L6101, L6103
L6102, L6104
L6108
L6106

ATF1194
LCTAW120J2520
LCTAW150J2520
LCTAW220J2520
LCTAW330J2520

CAPACITORS

C6171, C6172
C6126, C6128, C6142, C6144
C6127, C6143
C6102, C6106, C6115, C6149, C6155
C6182, C6184, C6186

CCSRCH120J50
CCSRCH220J50
CCSRCH680J50
CEHAT101M10
CEHAT101M10

5	6	7	8
Mark No.	Description	Part No.	Mark No. Description Part No.
C6105	CEHAT470M16		
C6151	CKSQYB225K10		
C6112, C6114	CKSRYB102K50		
C6119, C6122, C6136, C6139	CKSRYB104K16		
C6153, C6154, C6168, C6177	CKSRYB104K16		
C6101, C6175, C6190	CKSRYB105K10		
C6103, C6104, C6107-C6111, C6113	CKSSYF104Z16		
C6116, C6121, C6123-C6125	CKSSYF104Z16		
C6129-C6133, C6138, C6140, C6141	CKSSYF104Z16		
C6145-C6148, C6150, C6152	CKSSYF104Z16		
C6156-C6161, C6166, C6167, C6170	CKSSYF104Z16		
C6173, C6174, C6176, C6178-C6181	CKSSYF104Z16		
C6183	CKSSYF104Z16		
RESISTORS			
R6163, R6166, R6178, R6180	RAB4CQ0R0J		
R6101, R6104-R6106, R6120	RAB4CQ100J		
R6124, R6125	RAB4CQ100J		
R6153-R6155	RAB4CQ103J		
R6210-R6213	RAB4CQ121J		
R6146, R6159, R6184	RAB4CQ330J		
R6156, R6160, R6161, R6194, R6195	RS1/16S1000F		
R6122, R6140	RS1/16S1001F		
R6175	RS1/16S1101F		
R6147, R6174	RS1/16S1301F		
R6196	RS1/16S2400F		
R6126, R6138	RS1/16S2701F		
R6113, R6129	RS1/16S4700F		
R6167, R6168	RS1/16S8201F		
R6107	RS1/16SS100J		
R6157, R6158, R6182- R6183	RS1/16SS330J		
Other Resistors	RS1/16S###J		
[SINGLE SW BLOCK]			
SEMICONDUCTORS			
IC7902	AN5870SB		
IC7908	TC74VHC08FT		
IC7907	TC74VHC126FT		
IC7905	TC74VHCT541AFT		
Q7903, Q7905, Q7910	DTC124EUA		
Q7913, Q7916	HN1A01FU		
Q7901, Q7906, Q7911, Q7915	HN1C01FU		
Q7914	RN1902		
CAPACITORS			
C7923, C7925, C7926	CEHANP470M10		
C7905	CEHAT101M10		
C7902, C7928, C7929, C7931	CEHAT470M16		
C7908, C7912, C7917	CEHAT471M16		
C7907, C7911, C7916	CKSRYB103K50		
C7924, C7927, C7930	CKSRYB105K10		
C7906, C7909, C7910, C7914, C7918	CKSRYF103Z50		
C7903, C7904, C7913, C7915	CKSSYF104Z16		
C7920-C7922, C7932, C7943	CKSSYF104Z16		
RESISTORS			
R7902, R7907, R7910, R7914	RAB4CQ0R0J		
R7917, R7918, R7935	RAB4CQ0R0J		
R7903	RAB4CQ103J		
R7905, R7909, R7912	RS1/16S27R0F		
R8040-R8042	RS1/16S75R0F		
Other Resistors	RS1/16S###J		

6. ADJUSTMENT



1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

6.1 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit

No adjustment required

DIGITAL VIDEO Assy

Copy of backup data requires.

- When adjust with the service factory mode, refer to "10.DIGITAL EEPROM" of "6.2 SERVICE FACTORY MODE."
- When adjust with the command, refer to "7.1.6 BACKUP THE ADJUSTMENT VALUES FOR THE MAIN UNIT."

50 X DRIVE Assy

No adjustment required

50 Y DRIVE Assy

No adjustment required

AV I/O Assy

No adjustment required

RGB Assy

No adjustment required

VIDEO SLOT Assy

No adjustment required

Other assemblies

No adjustment required

Service Panel

Refer to "6.4 METHOD FOR REPLACING THE SERVICE PANEL ASSY."

■ When any part in the following assemblies is replaced

POWER SUPPLY Unit

The assembly must be replaced as a unit, and no part replacement is allowed.

DIGITAL VIDEO Assy

No adjustment required

50 X DRIVE Assy

No adjustment required

50 Y DRIVE Assy

No adjustment required

AV I/O Assy

Replacement and repair of IC6810, IC7610 and IC8705 are impossible.

RGB Assy

Replacement and repair of IC6001, IC6401, IC6403, IC6601, IC6602 and IC7205 are impossible.

VIDEO SLOT Assy

Replacement and repair of IC6107, IC6255, IC6257 and IC7902 are impossible.

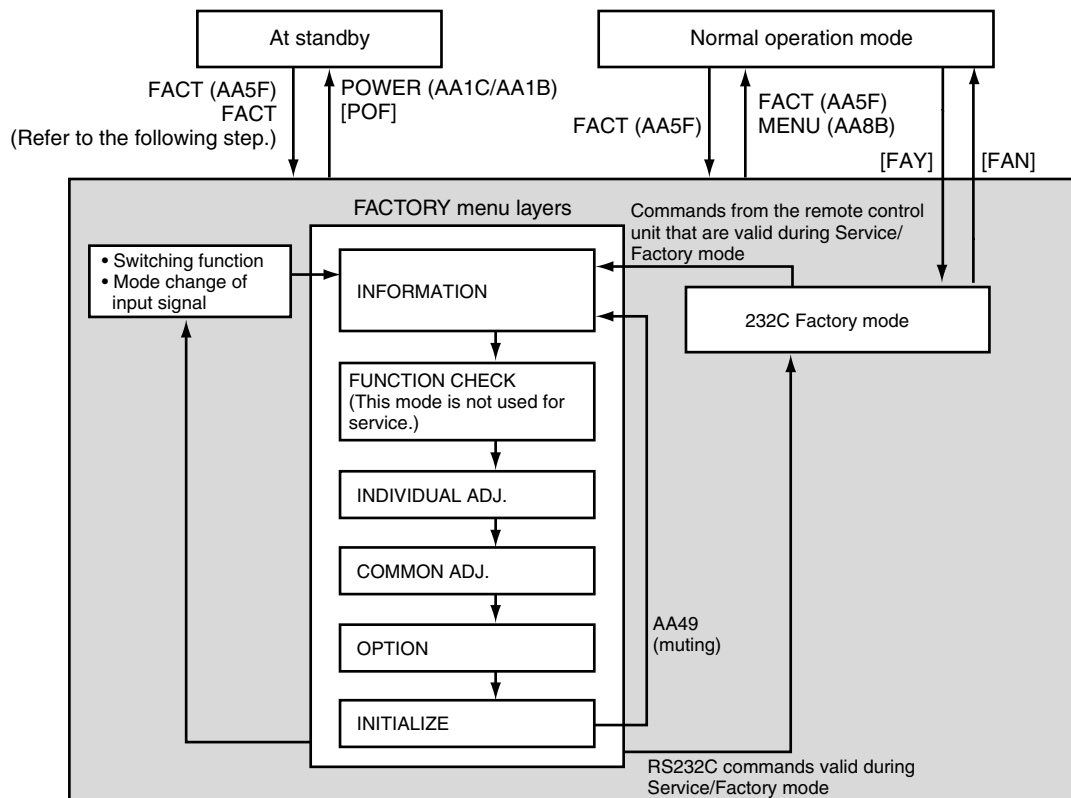
Other assemblies

No adjustment required

6.2 SERVICE FACTORY MODE

Commands in Service/Factory mode must be issued using the remote control unit supplied with the Plasma Display.

State Transition Diagram



6.3 HOW TO ENTER FACTORY MODE

For adjustments, it is necessary to enter Service/Factory mode. There are two ways to enter Service/Factory mode: by using the remote control unit, or by using RS232C commands from your PC.

When the unit is in Standby (STB) Mode

- Please refer to the technical document (Service Knowhow)

When the power is on

No.	Method	Procedures
1	Remote control unit	When the conventional Service/Factory code (AA5F) is sent, the unit will enter Service/Factory mode.
2	PC	Connect your PC via its RS232C port, and send the FAY command.

■ Operation when Service/Factory mode is entered

● Functions whose settings are set to OFF

The settings of the following functions are set to OFF when Service/Factory mode is entered (including when this mode is entered by receiving the FAY command):

- SPLIT (The display will become that of the main input.) (for PDP-5004, PDP-4304 only)
- MASK CONTROL
- ORBITER

● User's setting data

User setting data are set as follows:

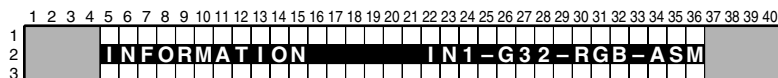
- Although user's adjustment data for video/audio adjustment and various adjustment are stored in memory, they are not reflected on the display.
- Although user's adjustment data for SCREEN are stored in memory, SCREEN adjustment data are reset to the default settings.
- Screen size and sound volume reflect user settings.
- The COLOR DECODING and SIGNAL FORMAT settings are reset to the default values.

■ Functions of the keys on the remote control unit in Service/Factory mode

SR Function	Main Function	Description
MUTING	Switching main items	For shifting to the next (top) main item
▼ (DOWN)	Switching subitems	For shifting to the next (downward) subitem
▲ (UP)	Switching subitems	For shifting to the previous (upward) subitem
◀ (LEFT)	Increasing adjustment value	For increasing adjustment value
▶ (RIGHT)	Decreasing adjustment value	For decreasing adjustment value
SET	Shifting layers	For shifting to lower or upper layer
INPUT *	Switching inputs	For switching the input to *
STANDBY/ON	POWER OFF	For turning off the power
FACTORY	Service/Factory OFF	For setting Service/Factory mode to OFF
MENU	Service/Factory OFF	For setting Service/Factory mode to OFF
SPLIT	Main screen/Sub screen change	MAIN ↔ SUB (for PDP-5004, PDP-4304 only)

Main-item indications

Four parameters are displayed:



1

2

3

4

1 Input function

Input Functions	On-Screen Display
IN1 to IN5	IN1 to IN5

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display
NTSC	Composite input/ S-connector input	NTV/NTS
BLACK/WHITE		BWV/BWS
Y/Cb/Cr, Y/Pb/Pr		CBR
RGB		RGB
Digital video signal		DIG

4 Option (Destination, etc.)

Options	On-Screen Display
PDP-5004 / PDP-4304	ASM
PDP-5014 / PDP-4314	ABM

● SIG-Mode Table

The signal mode is displayed in three characters:

First character: Resolution of the input signal (numerics for the video signals, and alphabets for the PC signals)

Second character: Grouping of the vertical frequencies

2nd Character	Reference Vertical Frequency	Area	Remarks
–	–	– 20.0	No signal
B		20.0 to 28.0	
C		28.0 to 45.0	
1	50	45.0 to 54.5	
2	56	54.5 to 58.2	
3	60	58.2 to 63.0	
4	66	63.0 to 68.0	
5	70	68.0 to 73.4	
6	For interpolation of 72-Hz	73.4 to 73.9	For distinguishing between 70-Hz or 75-Hz area
7	75	73.9 to 80.0	
8	85	80.0 to 88.5	
?	–	91.5 –	Out of range

Third character: Selection of the screen size by the user is displayed.

(○: available, ×: not available)

3rd Character	Description on GUI	VIDEO	PC
0	DOT BY DOT	×	○
1	4 : 3	○	○
2	FULL	○	○
3	ZOOM	○	×
4	WIDE	○	×
6	CINEMA	○	×

● SIG-Mode Table

SIG-Mode table for video signals

SIG-Mode	Signal Type	Vertical Freq. fv (Hz)	Horizontal Freq. fh (kHz)	Dot Clock (MHz)	Remarks
13*	SDTV • 480i	60.000	15.734	13.5	
33*	SDTV • 480p	60.000	31.469	27.000	
43*	HDTV • 1080i	60.000	33.750	74.250	
63*	HDTV • 720p	60.000	45.000	74.250	

*: Represents the current screen-size selected.

SIG-Mode table for PC signals

SIG-Mode	Signal Type	Vertical Freq. fv (Hz)	Horizontal Freq. fh (kHz)	Dot Clock (MHz)	Remarks
A2*	640 × 400	56.422	24.825	21.052	Former 720 × 400
A5*	720 × 400	70.087	31.469	28.322	Former 640 × 400
A8*	720 × 400	85.050	37.861	35.438	New
B1*	640 × 480	49.673	24.688	19.750	640 × 480 For rescan (48/50Hz)
B3*		59.940	31.469	25.175	
B4*		66.666	35.000	30.240	
B6*		72.809	37.861	31.500	
B7*		75.000	37.500	31.500	
B8*		85.000	43.300	36.000	
C1*	848 × 480	49.540	24.621	26.000	848 × 480 For rescan (48/50Hz)
C3*		60.000	31.020	33.750	
D2*	800 × 600	56.250	35.158	36.000	
D3*		60.317	37.879	40.000	
D6*		72.188	48.077	50.000	
D7*		75.000	46.875	49.500	
D8*		85.061	53.674	56.250	
E7*	832 × 624	74.550	49.725	57.283	
F1*	1024 × 768	48.003	38.690	52.000	1024 × 768 For rescan (48/50Hz)
F3*		60.004	48.363	65.000	
F5*		70.069	56.476	75.000	
F7*		75.029	60.023	78.750	
F8*		84.997	68.677	94.500	
G1*	1280 × 768	48.014	38.507	65.000	1280 × 768 For rescan (48/50Hz)
G2*		56.250	45.113	76.150	
G3*		59.870	47.776	79.500	
G5*		69.843	56.014	95.000	
O3*	1280 × 720	59.943	44.718	74.410	

* : Represents the current screen-size selected.

INFORMATION mode

Select the main item "INFORMATION" using the MUTE key then select the subitems shown in the table below using the ▲ or ▼ key.

● Operation items

No.	Function / Display	Content	232C Command
1	VERSION (1)	The flash memory versions for each device are displayed (1)	GS1
2	VERSION (2)	The type of video card inserted in the slot is displayed:	
3	SERIAL	For displaying the serial number of the product	GNP
4	PANEL PD	Power-down and its time of occurrence are displayed. The values can be cleared.	GPD
5	PANEL SD	Shutdown and its time of occurrence are displayed. The values can be cleared.	GNG
6	TEMPERATURE	Information on temperature is displayed.	GS2
7	HOUR METER	Cumulative power-on time is displayed. The value can be cleared.	GS2
8	PULSE METER	The pulse meter values at each block are displayed. The values can be cleared.	GPM
9	P ON COUNTER	The number of times the power was turned on is displayed. The value can be cleared.	GPC
10	DIGITAL EEPROM	The status of the backup data for the module microcomputer is displayed and updated.	GS2
11	HDMI SIGNAL INFO 1	The status-register data for the HDMI receiver are read out and displayed in hexadecimal notation.	—
12	HDMI SIGNAL INFO 2		

1. VERSION (1)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
2																																							
3																																							
4																																							
5																																							
6																																							
7																																							
8																																							
9																																							
10																																							
11																																							
12																																							
13																																							
14																																							
15																																							
16																																							

The flash memory versions for each device are displayed.

On-Screen Display	Flash memory of Device
I / F	User IF microcomputer
MAIN	Main microcomputer
WID-PRG	Program for IC3, Boot program for IC3
WID-DAT	Extension Engin data for IC3
GUI-DAT	GUI data for IC3
MODULE	Module microcomputer
SEQ-PRG	Program for IC4
SQ-DT-V	Sequence data for IC4 (for VIDEO)
SQ-DT-P	Sequence data for IC4 (for PC)

2. VERSION (2)

A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
2																																							
3																																							
4																																							
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13																																							
14																																							
15																																							
16																																							

B

Whether or not the video card has been inserted:

Device	Name Indication	Type of VIDEO SLOT Assy	Remarks
SLOT-DET	SLOT-DET	(No indication) 4G 5004R	No card inserted. The video card has been inserted correctly.

3. SERIAL

C

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
2																																							
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11																																							
12																																							
13																																							
14																																							
15																																							
16																																							

D

The serial number of the product is displayed.

E

F

4. PANEL PD

[illegible]

The log of the past eight power-downs is displayed. Power-down points (first and second) and the hour meter value when the power-down was generated are displayed, with the latest power-down data at the top.

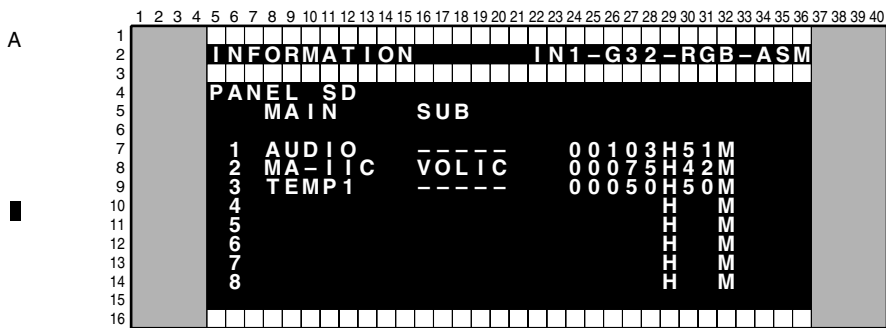
The meanings of indications for power-down points are shown in the table below.

- **Power-down information**

Type of Power-down	On-Screen Display	Type of Power-down	On-Screen Display
No corresponding item	- - - -	Power-down of the Y-SUS system	Y-SUS
Power-down of the main power supply system	POWER	Power-down of the address system	ADRS
Power-down of the scanning system	SCAN	Power-down of the X-DRIVE circuitry	X-DRV
Power-down in the path between the scanning system and 5-V power supply	SCN-5V	Power-down of the X-DC/DC converter	X-DCDC
Power-down of the Y-Drive system	Y-DRV	Power-down of the X-SUS system	X-SUS
Power-down of the Y-DC/DC converter	Y-DCDC	Power-down of the driving IC power supply system	D-DCDC
PD which cannot be specified	UNKNOWN		

*1: If an activated protection circuit could not be identified after the power-down, it is treated as an unidentifiable power-down (UNKNOWN).

5. PANEL SD



- **Panel shutdown information**

Type of Shutdown	On-Screen Display (MAIN)	Subcategory
Abnormality in IC4 communication	IC4	
Abnormality in module microcomputer IIC communication	MD-IIC	Exists.
DIGITAL-DCDC power decrease	RST2	
Abnormality in panel temperature	TEMP1	
Short-circuiting of the speakers	AUDIO	
Abnormality in module microcomputer communication	MODULE	
Abnormality in three-wire serial communication of the main microcomputer	MA-SRL	Exists.
Abnormality in main microcomputer IIC communication	MA-IIC	Exists.
Abnormality in main microcomputer communication	MAIN	
FAN stopped	FAN	
Abnormality in unit temperature	TEMP	Exists.
Abnormality in the ASIC power on the main microcomputer side	M-DCDC	
Other failures	ETC	Exists.

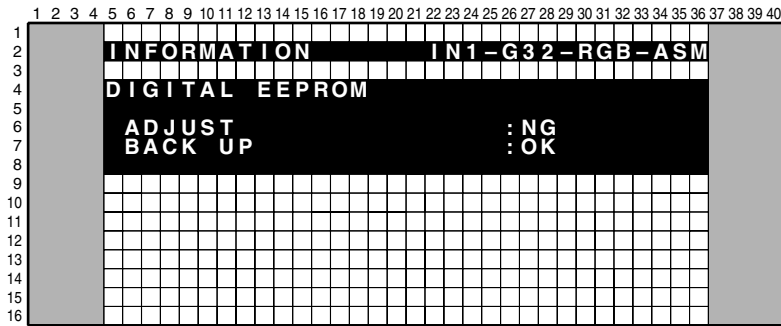
- **Subcategory information**

Type of Shutdown	Subcategory
MD-IIC	EEPROM4K, EROM2K
MA-SRL	IF microcomputer, IC2 (IC7004)(IC8702), IC3 (IC7101)
MA-IIC	MA-EEP (IC7205), IC1-V (IC6107), IC1-Y (IC6255), AD-M (IC6001), AD-S (IC6602), SL-EEP (IC6257), IC6/1 (IC5701), IC6/2 (IC5801), VOLIC (IC7603), HDMI 2 (IC6810)
TEMP	INSIDE/AIR (INSIDE = TEMP2/AIR =TEMP3)
ETC	VCC-D1, VCC-D2, VCC-D4 (IC6809)

10. DIGITAL EEPROM

When the DIGITAL VIDEO Assy is to be replaced, the adjustment values in it are temporarily stored in the backup ROM then are written on the new Assy after replacement.

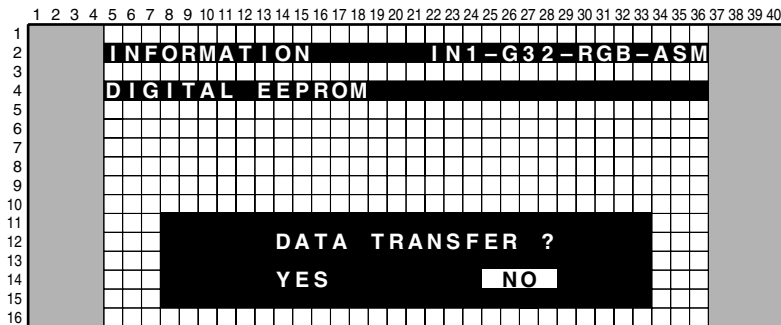
- ① Check if adjustment has been made on the DIGITAL VIDEO Assy or not (i.e., in the state of a new service part), and if the data on any adjustment values are retained in the backup ROM or not.



- ADJUST: OK (DIGITAL VIDEO Assy adjusted)
NG (DIGITAL VIDEO Assy not adjusted)
- BACKUP: OK (Adjustment data retained in the backup ROM)
NG (Adjustment data not retained in the backup ROM)

- ② Downloading the data for the DIGITAL VIDEO Assy from the backup ROM

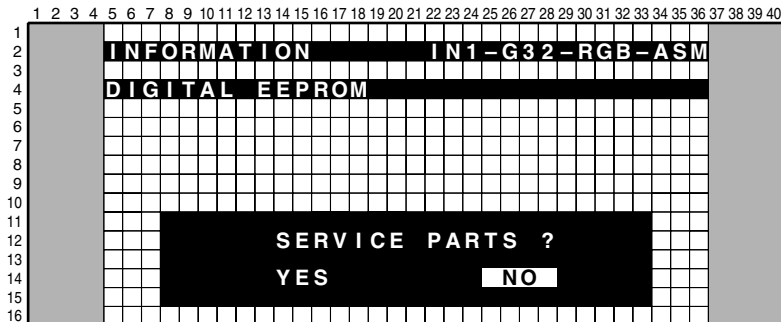
- Press the SET key while display ① above is displayed, and the following display will appear.



- Move the cursor to YES and press the SET key.
The data in the backup ROM are copy to the DIGITAL VIDEO Assy.
(When a new DIGITAL VIDEO Assy has been mounted, it now has the adjustment data suited for the panel.)
- Move the cursor to NO, and press the SET key.
Copy of the data to the DIGITAL VIDEO Assy will not be executed.

- ③ Clearing the data in the ROM of the DIGITAL VIDEO Assy

- When YES or NO is selected while display ② above is displayed, the following display will appear.



- Move the cursor to YES and press the SET key.
The data in the ROM of the DIGITAL VIDEO Assy are cleared, and the Assy has no specific adjustment data.
- Move the cursor to NO and press the SET key. The data in the ROM of the DIGITAL VIDEO Assy are not cleared.
When YES selected on display ② and the data were copy, select NO on this display.

Note: When YES or NO is selected on display ③ above, the display returns to that of ① above.

11. HDMI SIGNAL INFO 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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- The status-register data for the HDMI receiver are read out and displayed in hexadecimal notation.
- If an input function other than HDMI is selected, the indication for HDMI is grayed, and the parameter indication is "--".
- To update the status data, use the left/right keys.

12. HDMI SIGNAL INFO 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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- The status-register data for the HDMI receiver are read out and displayed in hexadecimal notation.
- If an input function other than HDMI is selected, the indication for HDMI is grayed, and the parameter indication is "--".
- To update the status data, use the left/right keys.

Adjustment of corresponding route unevenness

Basically, only replacement of service parts is required, and adjustment is not required.

No.	Command	Adjustment Parameter Name in Factory	Function
1	VSG	CVY GAIN	IC1 MAIN GAIN adjustment (switching routes with the SWM [main] and SWS [sub] commands)
2	VSO	CVY OFFSET	IC1 MAIN OFFSET adjustment (switching routes with the SWM [main] and SWS [sub] commands)
3	RYG	RY GAIN	AD R GAIN adjustment (correction in differences between component- and RGB-system signals)
4	GYG	GY GAIN	AD G GAIN adjustment (correction in differences between component- and RGB-system signals)
5	BYG	BY GAIN	AD B GAIN adjustment (correction in differences between component- and RGB-system signals)
6	ADC	AD MAIN CONTRAST	AD MAIN RGB GAIN adjustment (for main screen)
7	MRG	AD MAIN R GAIN	AD MAIN R GAIN adjustment (for main screen)
8	MGG	AD MAIN G GAIN	AD MAIN G GAIN adjustment (for main screen)
9	MBG	AD MAIN B GAIN	AD MAIN B GAIN adjustment (for main screen)
10	MRO	AD MAIN R OFFSET	AD MAIN R OFFSET adjustment (for main screen)
11	MGO	AD MAIN G OFFSET	AD MAIN G OFFSET adjustment (for main screen)
12	MBO	AD MAIN B OFFSET	AD MAIN B OFFSET adjustment (for main screen)
13	SRG	AD SUB R GAIN	AD SUB R GAIN adjustment (for sub screen)
14	SGG	AD SUB G GAIN	AD SUB G GAIN adjustment (for sub screen)
15	SBG	AD SUB B GAIN	AD SUB B GAIN adjustment (for sub screen)
16	SRO	AD SUB R OFFSET	AD SUB R OFFSET adjustment (for sub screen)
17	SGO	AD SUB G OFFSET	AD SUB G OFFSET adjustment (for sub screen)
18	SBO	AD SUB B OFFSET	AD SUB B OFFSET adjustment (for sub screen)

Reference: Commands for adjustment of differences in signals and memory cells used for storing adjustment values

- Basically no adjustment is required for the Service Assy, as it is properly adjusted before shipment.

Adjustment values to be stored in the EEPROM of the AV I/O (INDIVIDUAL mode)

Adjustment values differ depending on the input function, input signal format, and main/sub screen.

Input and Signal Format	Commands for Adjustment	
	Route for the Main Screen	Route for the Sub Screen
INPUT1 (RGB)	RYG GYG BYG	RYG GYG BYG
INPUT1 (Color difference)	RYG GYG BYG	RYG GYG BYG

- Four adjustment tables are provided here, depending on the input function, input signal format, and main/sub screen.
- No adjustment is required for INPUT 2, which is of HDMI (digital video interface) standards.

Adjustment values to be stored in the EEPROM of the VIDEO SLOT 2 Assy

Adjustment values differ depending on the input function and main/sub screen.

Input and Signal Format	Commands for Adjustment	
	Route for the Main Screen	Route for the Sub Screen
INPUT3 (Y/C)	VSG VSO	RYG GYG BYG
INPUT4 (Comp. V)	VSG VSO	RYG GYG BYG
INPUT5 (RGB)	RYG GYG BYG	RYG GYG BYG
INPUT5 (Color difference)	RYG GYG BYG	RYG GYG BYG

- Eight adjustment tables are provided here, depending on the input function and main/sub screen.

Adjustment values to be stored in the EEPROM of the RGB (COMMON mode)

Adjustment values differ depending on the signal resolution, input signal format, and main/sub screen.

Note: No adjustment is required for HDMI input or signals converted to digital signals by IC1.

[Main adjustment 1]

Main A/D adjustments for R, G, and B individually (COMMON-RGB mode)

Input and Signal Format	Commands for Adjustment		Conditions for the Tables to be Switched
480i (RGB)	MRG MGG MBG	MRO MGO MBO	Video RGB signals
480i (Color difference)	MRG MGG MBG	MRO MGO MBO	Video color-difference signals
VGA (RGB)	MRG MGG MBG	MRO MGO MBO	PC signals (640x400 - 832x624)
XGA (RGB)	MRG MGG MBG	MRO MGO MBO	PC signals (1024x768 - 1280x768)

- To adjust the video signals, input corresponding signals to INPUT 5 to change the RGB/color-difference signal setting then perform adjustment.
- To adjust the PC signal, input a signal to INPUT 1. Make sure that the SIGNAL FORMAT setting is correctly made. Then adjust the signal.
- Four adjustment tables are provided here, depending on the signal resolution, input signal format, and main/sub screen.

[Sub adjustment 1]

Main A/D adjustments for R, G, and B individually (COMMON-RGB 1 mode)

Input and Signal Format	Commands for Adjustment		Conditions for the Tables to be Switched
RGB	SRG SGG SBG	SRO SGO SBO	All R, G, and B signals
Color difference	SRG SGG SBG	SRO SGO SBO	All color-difference signals

- For adjustment according to the above tables, input video signals to INPUT 5 to switch to the route for sub input and to change the RGB/color-difference signal setting then perform adjustment.
- Two adjustment tables are provided here, depending on the signal format.

[Main adjustment 2]

Main A/D adjustments for all R, G, and B simultaneously (COMMON-RGB 2 mode)

Input and Signal Format	Commands for Adjustment	Conditions for the Tables to be Switched
RGB	ADC	All R, G, and B signals
Color difference	ADC	All color-difference signals

- For adjustment according to the above tables, input video signals to INPUT 5 to switch to the route for main input and to change the RGB/color-difference signal setting then perform adjustment.
- A contrast gain commits this adjustment command simultaneously three colors.
- Two adjustment tables are provided here, depending on the signal format.

B

CD

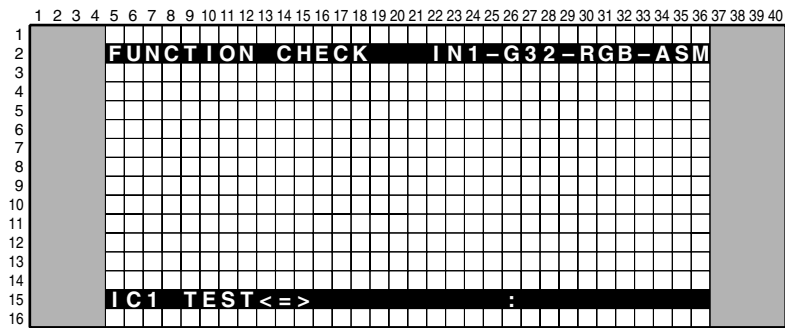
E

F

Each time the SET key is pressed, items grouped under the subitem are selected.

4

FUNCTION CHECK mode



Each time the ▲ or ▼ key is pressed, the individual adjustment items are changed, as follows:

No.	Display	Function
1	IC1 TEST<=> :	(Not used)
2	IC2 TEST<=> :	(Not used)
3	IC3 TEST<=> :	(Not used)
4	IC4 TEST<=> :	(Not used)
5	FAN<=> :***	The rotation speed of the fan is forcibly switched. (*)

- Note (*)**:
- The operation of the fan can be checked by setting FAN to MAX.
 - Set to CNT normally.

1. COMMON-RGB1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

When the main input is selected

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	MRG	AD MAIN R GAIN <=> : ***	AD (IC6001) MAIN R GAIN adj. (for main screen)	000 to 255	
2	MGG	AD MAIN G GAIN <=> : ***	AD (IC6001) MAIN G GAIN adj. (for main screen)	000 to 255	
3	MBG	AD MAIN B GAIN <=> : ***	AD (IC6001) MAIN B GAIN adj. (for main screen)	000 to 255	
4	MRO	AD MAIN R OFFSET <=> : ***	AD (IC6001) MAIN R OFFSET adj. (for main screen)	000 to 255	
5	MGO	AD MAIN G OFFSET <=> : ***	AD (IC6001) MAIN G OFFSET adj. (for main screen)	000 to 255	
6	MBO	AD MAIN B OFFSET <=> : ***	AD (IC6001) MAIN B OFFSET adj. (for main screen)	000 to 255	

When the sub input is selected

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	SRG	AD SUB R GAIN <=> : ***	AD (IC6602) SUB R GAIN adj. (for sub screen)	000 to 255	
2	SGG	AD SUB G GAIN <=> : ***	AD (IC6602) SUB G GAIN adj. (for sub screen)	000 to 255	
3	SBG	AD SUB B GAIN <=> : ***	AD (IC6602) SUB B GAIN adj. (for sub screen)	000 to 255	
4	SRO	AD SUB R OFFSET <=> : ***	AD (IC6602) SUB R OFFSET adj. (for sub screen)	064 to 191	
5	SGO	AD SUB G OFFSET <=> : ***	AD (IC6602) SUB G OFFSET adj. (for sub screen)	064 to 191	
6	SBO	AD SUB B OFFSET <=> : ***	AD (IC6602) SUB B OFFSET adj. (for sub screen)	064 to 191	

"***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

- Notes:**
- The differences in signals for the main and sublevel screens from the RGB Assy are compensated, and the compensation data are stored in the EEPROM (IC7205) for each screen.
 - No adjustment required normally.

2. COMMON-RGB 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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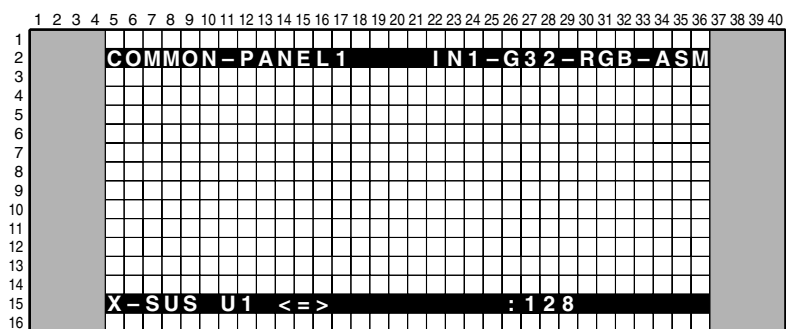
No.	Corresponding 232C Command	Function/Display	Content	Adjustable range	Remarks
1	ADC	AD MAIN CONTRAST<=> : ***	AD (IC6001) MAIN RGB GAIN adj. (for main screen)	000 to 255	

"***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

- Note:** No adjustment required normally.

3. COMMON-PANEL1



Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range
1	XU1	X-SUS U1 <=> : ***	Adjustment of X-SUS leading edge pulse U1	124 to 132
2	XU2	X-SUS U2 <=> : ***	Adjustment of X-SUS leading edge pulse U2	124 to 132
3	XD1	X-SUS D1 <=> : ***	Adjustment of X-SUS trailing edge pulse D1	124 to 132
4	XD2	X-SUS D2 <=> : ***	Adjustment of X-SUS trailing edge pulse D2	124 to 132
5	YU1	Y-SUS U1 <=> : ***	Adjustment of Y-SUS leading edge pulse U1	124 to 132
6	YU2	Y-SUS U2 <=> : ***	Adjustment of Y-SUS leading edge pulse U2	124 to 132
7	YD1	Y-SUS D1 <=> : ***	Adjustment of Y-SUS trailing edge pulse D1	124 to 132
8	YD2	Y-SUS D2 <=> : ***	Adjustment of Y-SUS trailing edge pulse D2	124 to 132
9	YD3	Y-SUS D3 <=> : ***	Adjustment of X-SUS trailing edge pulse D3	124 to 132
10	YD4	Y-SUS D4 <=> : ***	Adjustment of X-SUS trailing edge pulse D4	124 to 132
11	VSU	VLT-SUS <=> : ***	SUS voltage adjustment	000 to 255
12	VOF	VLT-OFS <=> : ***	OFFSET voltage adjustment	000 to 255

***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

Notes:

- Adjustments No. 1 to No. 10 above are not normally required, unless so instructed by Service Information, etc.
- Readjustment of values for No. 11 [VSU] and No. 12 [VOF] are required when the service panel is replaced.

4. COMMON-PANEL2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range
1	PRH	PANEL R HIGH <=> : *** (PTO)	Panel W/B R-HIGH adjustment	000 to 511
2	PGH	PANEL G HIGH <=> : *** (PTO)	Panel W/B G-HIGH adjustment	000 to 511
3	PBH	PANEL B HIGH <=> : *** (PTO)	Panel W/B B-HIGH adjustment	000 to 511
4	PRL	PANEL R LOW <=> : *** (PTO)	Panel W/B R-LOW adjustment	000 to 999
5	PGL	PANEL G LOW <=> : *** (PTO)	Panel W/B G-LOW adjustment	000 to 999
6	PBL	PANEL B LOW <=> : *** (PTO)	Panel W/B B-LOW adjustment	000 to 999
7	ABL	ABL LEVEL <=> : *** (ABx)	Power consumption adjustment	000 to 999

"***" in the table above represents the adjustment value.

The value of each subitem can be changed using the ◀ or ▶ key.

White balance adjustment.(From No.1 to No.6). (Refer to 116 pages of the " [W/B-adjustment procedurs]")

Notes: Adjustments No. 7: [ABL] above are not normally required, unless so instructed by Service Information, etc.

"(PTO)" and "(ABx)" in the table above represent the following:

Note: No adjustment required normally.

Indication	Table
PT1	For PC and NTSC

Indication	Table
AB1	For 60Hz, 72Hz and 75Hz video
AB3	For PC

OPTION mode

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Select the main item "OPTION" using the MUTE key then select the subitems shown in the table below using the ▲ or ▼ key.

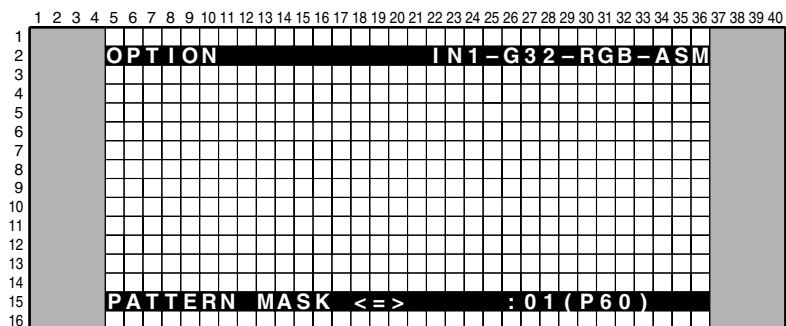
No.	Function/Display	Content	Remarks
1	PATTERN MASK (+)	For selecting Pattern mask of IC4	A lower layer exists.
2	FULL MASK (+)	For selecting raster mask of IC4	A lower layer exists.
3	DYNAMIC RANGE	ON ⇔ OFF	The last setting is not stored in memory (initial setting: ON).
4	EDID WRITE MODE	DISABLE ⇔ ENABLE	The last setting is not stored in memory (initial setting: DISABLE).

Note:

- For PATTERN MASK (+) and FULL MASK (+), press the SET key to switch to the lower layer.
- Adjustments No. 3 and 4 are not required for servicing.

1. PATTERN MASK

2. FULL MASK



To select the mask frequency, use the ◀ or ▶ key.

To select the mask pattern, use the ▲ or ▼ key.

Mask Frequency

No.	Corresponding RS-232C Command	Function/ Display	Content
1	F48	V48	Video 48-Hz sequence
2	F50	V50	Video 50-Hz sequence
3	F60	V60 (initial value)	Video 60-Hz sequence
4	F61	P60	PC 60-Hz sequence
5	F70	P70	PC 70-Hz sequence
6	F72	V72	Video 72-Hz sequence
7	F75	V75	Video 75-Hz sequence

Pattern Mask

No.	Corresponding RS-232C Command	Function/ Display	Content
1	M00	OFF	Mask mode: OFF
2	M01	01	White 0 to 100%
3	M02	02	Aging mask
4	M03	03	Aging mask (detection of still picture: OFF)
5	M10	10	H RAMP1
6	M11	11	H RAMP2
7	M12	12	H RAMP3
8	M13	13	H RAMP4
9	M14	14	V RAMP
10	M15	15	H/V RAMP
11	M20	20	Window0
12	M21	21	Window1
13	M22	22	Window2
14	M23	23	Window3
15	M24	24	Window4
16	M25	25	Window5
17	M26	26	Window6
18	M27	27	Window7
19	M28	28	Window8
20	M29	29	Window9
21	M2E	2E	Wiper for erasing afterimage
22	M30	30	COLOR BAR
23	M31	31	Slanted lines

Full Mask

No.	Corresponding RS-232C Command	Function/ Display	Content
1	M00	OFF	Mask mode: OFF
2	M51	51	Raster – White
3	M52	52	Raster – Red
4	M53	53	Raster – Green
5	M54	54	Raster – Blue
6	M55	55	Raster – Black
7	M56	56	Raster – Cyan
8	M57	57	Raster – Mazenta
9	M58	58	Raster – Yellow
10	M59	59	Raster – Cyan 274
11	M60	60	Raster – 50 fresh color
12	M61	61	Raster – 50 purple
13	M62	62	Raster – 50 sky blue
14	M63	63	Raster – Red 779
15	M64	64	Raster – Cyan 218
16	M65	65	Raster – Cyan 448
17	M66	66	Raster – 43 fresh color
18	M67	67	Raster – Red 640
19	M68	68	Raster – Mazenta 98
20	M69	69	Raster – 43 sky blue 1
21	M70	70	Raster – 43 sky blue 2
22	M71	71	Raster – 43 purple
23	M72	72	Raster – Blue 960
24	M73	73	Raster – Yellow 512
25	M74	74	Raster – Gray 512

3. DYNAMIC RANGE

The setting can be changed using the ◀ or ▶ key.

No.	Corresponding RS-232C Command	Function/ Display	Content
1	DYY	ON	DYNAMIC RANGE correction: ON (initial setting)
2	DYN	OFF	DYNAMIC RANGE correction: OFF

4. EDID WRITE MODE

The setting can be changed using the ◀ or ▶ key.

No.	Corresponding RS-232C Command	Function/ Display	Content
1	EWN	DISABLE	Prohibiting writing EDID data (initial setting)
2	EWY	ENABLE	Enabling writing EDID data

INITIALIZE mode

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1	INITIALIZE															IN1-G32-RGB-ASM																								
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15	SYNC DET (+)																																							
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The subitems can be changed using the ▲ or ▼ key.

No.	Corresponding RS-232C Command	Function/Display	Content
1	—	SYNC DET (+) *1	Setting of the sync signal detection (correspond individually)
2	—	DRIVE MODE (+)	Setting of the luminescence pulse number of the lowest level (correspond individually)
3	—	SIDE MASK LEVEL (+)	Setting of the side mask color (correspond individually)
4	—	PANEL REVISE (+)	(Not used)
5	FST	FINAL SETUP	For initializing user's settings and some factory settings
6	—	C TEMP LOW (+)	For adjusting the user's C TEMP MODE item selected
7	—	C TEMP MID LOW (+)	
8	—	C TEMP MID (+)	
9	—	C TEMP MID HIGH (+)	
10	—	C TEMP HIGH (+)	
11	—	HDMI INTR POSITION (+)	(Not used)

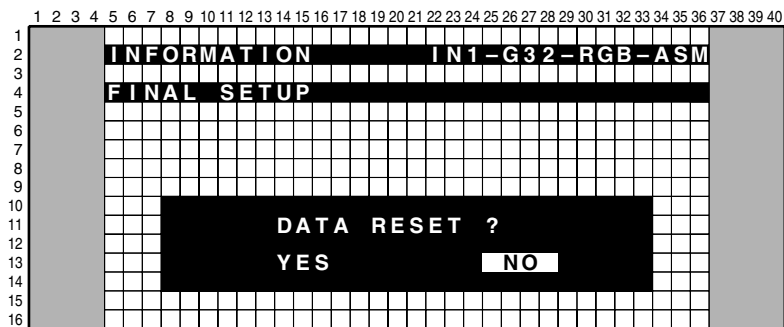
Note: Any item followed by (+) has a lower layer to which you can switch using the SET key.

*1: SYNC DET

Setting	Function	Details
STANDARD	Normal setting	The judgment of synchronization is automatically performed, followed by appropriate image processing.
NON-STD1	LD STILL detection OFF	If the LD STILL operation is performed during setting, the image on the screen is horizontally blurred.
NON-STD2	The judgment of synchronization is set to Nonstandard.	Not the 3-D Y/C processing but the 3-line Y/C processing is performed.

1. FINAL SETUP

A



B

Select YES or NO using the ◀ or ▶ key then press the SET key for finalizing the selection:

YES : For executing FINAL SETUP

NO : For not executing FINAL SETUP

In FINAL SETUP, the following items can be initialized:

	Item (operation)	Factory setting	Remarks
C	Normal	Input function (main)	INPUT1
		Input function (sub)	INPUT2
		Screen size	VIDEO WIDE or FULL
			PC DOT BY DOT or FULL or 4:3
		Volume	0
		Multi screen	OFF
D		AV SELECTION	DYNAMIC (at VIDEO), STANDARD (at PC)
	Menu setting	PICTURE	Default setting for all adjustment items
		SCREEN	Default setting for all adjustment items
		SET UP	Default setting for all adjustment items
E		OPTION	Default setting for all adjustment items
	Factory	PATTERN MASK	OFF
		FULL MASK	OFF
		EDIT WRITE MODE	DISABLE
F		PEAK LIMITER	—

2. C TEMP

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																								
2	INI-CT-MID																IN1-G32-RGB-ASM																							
3																																								
4																																								
5																																								
6																																								
7																																								
8																																								
9																																								
10																																								
11																																								
12																																								
13																																								
14																																								
15	R HIGH <=>																: 128																							
16																																								

The indication on the 2nd line in the above display varies according to the subitem selected in the upper layer, as follows:

INIT-CT- ****
 ****: LOW/MID/HIGH

Notes: Adjustments are not normally required, unless so instructed by Service Information, etc.

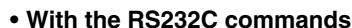
Each time the ▲ or ▼ key is pressed, items grouped under the subitems are changed, as follows:

No.	Function/Display	Content
1	R HIGH <=>	For adjusting R highlight in the selected color temperature mode
2	G HIGH <=>	For adjusting G highlight in the selected color temperature mode
3	B HIGH <=>	For adjusting B highlight in the selected color temperature mode
4	R LOW <=>	For adjusting R lowlight in the selected color temperature mode
5	G LOW <=>	For adjusting G lowlight in the selected color temperature mode
6	B LOW <=>	For adjusting B lowlight in the selected color temperature mode

To change the value of each item, press the ◀ or ▶ key.

A ■ Adjustments of the Vsus and Vofs voltages

Input the reference adjustment values that are described on the service panel for the Vsus and Vofs voltages, with the RS232C commands or on the Factory menu.



- Reference adjustment of the Vsus voltage : [VSU***] Ex. : [VSU106]
- Reference adjustment of the Vofs voltage : [VOF***] Ex. : [VOF128]

Figure 1 shows two 16x40 grid diagrams. The left grid is labeled 'COMMON ADJ.' and the right grid is labeled 'COMMON - PANEL 1'. Both grids have a header row with column numbers 1 to 40. The left grid has a footer row labeled 'PANEL 1 (+)'. The right grid has a footer row labeled 'VLT - SUS <=> : 128'.

- Clearing various logs for the panel, such as that for the hour meter

Notes: • For clearing, use the RS232C commands or the Factory menu.

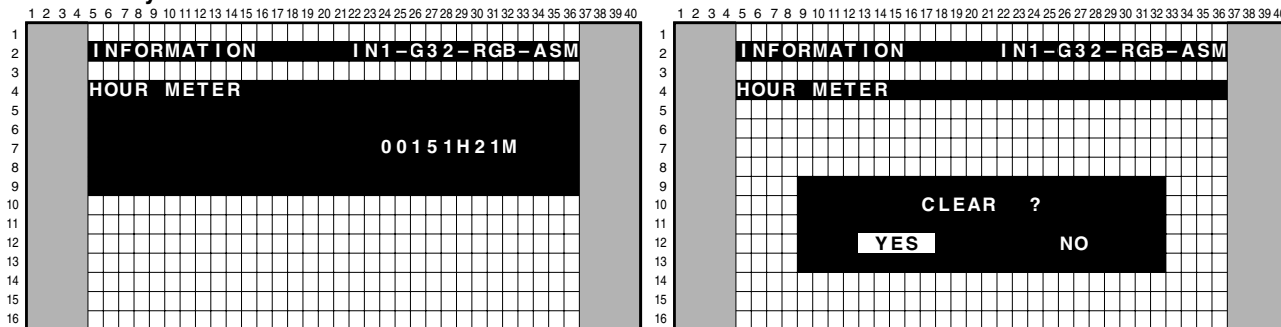
- There are two hour meters. Be careful not to mistake the MR hour meter for the hour meter for the panel.

- With the RS232C commands

You can obtain the accumulated power-on time data of the product itself with the "GS2" RS232C command. (See "6.3 COMMANDS: Command description".)

- | | |
|---|-------|
| 1 For clearing the hour meter (for the panel) | : CHM |
| 2 For clearing the pulse meter | : CPM |
| 3 For clearing the shutdown (SD) log | : CNG |
| 4 For clearing the power-down (PD) log | : CPD |

- On the Factory menu



In the same way, select the subitem "PULSE METER," "PANEL SD," or "PANEL PD" under the main item "INFORMATION" then clear the data.

About GET Command

● Operation description of GET command

■ Conditions under which GET commands are enabled

Most of the GET commands are enabled at any time, regardless of unit's being on/off or in Factory or Normal mode. However, some GET commands must be issued while the power is on to acquire correct data.

GDI: GET STATUS

Data						Size		
		PDP-5004	PDP-4304	PDP-5014	PDP-4314			
1	Resolution	[5]: 1280*768	[4]: 1024*768	[5]: 1280*768	[4]: 1024*768	1 Byte		
2	Age type	[4]: 2004 year				1 Byte		
3	Destination	[A]: America				1 Byte		
4	Grade	[S]: Step up		[B]: Basic		1 Byte		
5	Configuration	[M]: Monitor				1 Byte		
6	Dummy	[2]				1 Byte		
7	Spare	[* *]				2 Byte		

GS1: Returning information on the model and the version of the software

Order	Data	Size
1	Data on the display	3 byte
2	Version of the module microcomputer	4 byte
3	Version of the IC4-MANTA	4 byte
4	Sequence version (43VIDEO)	4 byte
5	Sequence version (43PC)	4 byte
6	Sequence version (50VIDEO)	4 byte
7	Sequence version (50PC)	4 byte
8	Version of the IF microcomputer	4 byte
9	Version of the main microcomputer	4 byte
10	Version of the IC3-MANTA	4 byte
11	Version of the OSD	4 byte
12	Dummy	12 byte

Breakdown of the data on the display

Data	Model
MX5	PDP-5004 / PDP-5014
MX4	PDP-4304 / PDP-4314

GPW: RGB-level-related adjustment values of the panel system

Order	Data	Size
1	Panel W/B table currently used	3 byte
2	Main contrast	4 byte
3	Red high light of the W/B adjustment value	4 byte
4	Green high light of the W/B adjustment value	4 byte
5	Blue high light of the W/B adjustment value	4 byte
6	Main brightness	4 byte
7	Red low light of the W/B adjustment value	4 byte
8	Green low light of the W/B adjustment value	4 byte
9	Blue low light of the W/B adjustment value	4 byte

• Details on "Panel W/B table"

Data	Table
PT1	WB table for NTSC

GPD: Power-down information

Order	Data	Size	Order	Data	Size
1	Latest "1st PD" data	1 byte	17	Fifth latest "1st PD" data	1 byte
2	Latest "2nd PD" data	1 byte	18	Fifth latest "2nd PD" data	1 byte
3	Data of hour meter for the latest PD	7 byte	19	Data of hour meter for the fifth latest PD	7 byte
4	Data on temperature for the latest PD (TEMP1)	3 byte	20	Data on temperature for the fifth latest PD (TEMP1)	3 byte
5	Second latest "1st PD" data	1 byte	21	Sixth latest "1st PD" data	1 byte
6	Second latest "2nd PD" data	1 byte	22	Sixth latest "2nd PD" data	1 byte
7	Data of hour meter for the second latest PD	7 byte	23	Data of hour meter for the sixth latest PD	7 byte
8	Data on temperature for the second latest PD (TEMP1)	3 byte	24	Data on temperature for the sixth latest PD (TEMP1)	3 byte
9	Third latest "1st PD" data	1 byte	25	Seventh latest "1st PD" data	1 byte
10	Third latest "2nd PD" data	1 byte	26	Seventh latest "2nd PD" data	1 byte
11	Data of hour meter for the third latest PD	7 byte	27	Data of hour meter for the seventh latest PD	7 byte
12	Data on temperature for the third latest PD (TEMP1)	3 byte	28	Data on temperature for the seventh latest PD (TEMP1)	3 byte
13	Fourth latest "1st PD" data	1 byte	29	Eighth latest "1st PD" data	1 byte
14	Fourth latest "2nd PD" data	1 byte	30	Eighth latest "2nd PD" data	1 byte
15	Data of hour meter for the fourth latest PD	7 byte	31	Data of hour meter for the eighth latest PD	7 byte
16	Data on temperature for the fourth latest PD (TEMP1)	3 byte	32	Data on temperature for the eighth latest PD (TEMP1)	3 byte

Hour meter data; 1 to 5 byte: time, 6 to 7 byte: minute

• Details on "1st/2nd PD" data

Data	Power-down Point
0	No power-down
1	Not used (for MR-POWER)
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D, E	Spare
F	Power-down point not identified

GNG: Shutdown information

Order	Data	Size	Order	Data	Size
1	Latest SD data	1 byte	17	Fifth latest SD data	1 byte
2	Data of subcategory for the latest SD	1 byte	18	Data of subcategory for the fifth latest SD	1 byte
3	Data of hour meter for the latest SD	7 byte	19	Data of hour meter for the fifth latest SD	7 byte
4	Data on temperature for the latest SD	3 byte	20	Data on temperature for the fifth latest SD	3 byte
5	Second latest SD data	1 byte	21	Sixth latest SD data	1 byte
6	Data of subcategory for the second latest SD	1 byte	22	Data of subcategory for the sixth latest SD	1 byte
7	Data of hour meter for the second latest SD	7 byte	23	Data of hour meter for the sixth latest SD	7 byte
8	Data on temperature for the second latest SD	3 byte	24	Data on temperature for the sixth latest SD	3 byte
9	Third latest SD data	1 byte	25	Seventh latest SD data	1 byte
10	Data of subcategory for the third latest SD	1 byte	26	Data of subcategory for the seventh latest SD	1 byte
11	Data of hour meter for the third latest SD	7 byte	27	Data of hour meter for the seventh latest SD	7 byte
12	Data on temperature for the third latest SD	3 byte	28	Data on temperature for the seventh latest SD	3 byte
13	Fourth latest SD data	1 byte	29	Eighth latest SD data	1 byte
14	Data of subcategory for the fourth latest SD	1 byte	30	Data of subcategory for the eighth latest SD	1 byte
15	Data of hour meter for the fourth latest SD	7 byte	31	Data of hour meter for the eighth latest SD	7 byte
16	Data on temperature for the fourth latest SD	3 byte	32	Data on temperature for the eighth latest SD	3 byte

Hour meter data; 1 to 5 byte: time, 6 to 7 byte: minute

• Details on the SD data

Data	Cause of Shutdown
0	No abnormality
1	IC4
2	Module microcomputer IIC
3	Abnormality in DIG-RST2 (power decrease of ASIC)
4	Panel having abnormally high temperature
5	Audio failure (short-circuiting of the speakers)
6	Communication failure of the module microcomputer
7	Three-wire serial communication failure of the main microcomputer
8	IIC communication failure of the main microcomputer
9	Communication failure of the main microcomputer
A	Fan stopped
B	Temperature abnormality
D	Abnormality in MAIN-RST2
F	Others

• Data on the subcategories for the module microcomputer IIC

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (4k)
2	EEPROM (2k)

• Data on the subcategories for failure in 3-wire serial communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	Communication failure of the IF microcomputer
2	IC2 communication failure
3	IC3 communication failure

• Data on the subcategories for failure in IIC communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (128k) (IC7205)
2	Not used
3	IC1 V (IC6107)
4	IC1 Y (IC6255)
5	AD-PLL main (IC6001)
6	AD-PLL sub (IC6002)
7	IC6/1 (IC5701)
8	Not used
9	HDMI 2 (IC6810)
A	Not used
B	Not used
C	Not used
D	Not used
E	Not used
F	EEPROM (SLOT)
G	Not used
H	Not used
N	IC6/2 (IC5801)

• Subcategory data on abnormal temperature

Data	Cause of Shutdown
2	Temperature inside the unit (INSIDE)
3	Ambient temperature (AIR)

• Subcategory data on other failures

Data	Cause of Shutdown
2	Power monitor 1 (VCC-D1)
3	Power monitor 1 (VCC-D2)
5	Power monitor 1 (VCC-D4) (IC6809)

GS2: Status information

Order	Data	Size	Remarks
1	Notifying of switching to Standby mode	1 byte	1: Successfully switched to Standby mode
2	Whether the unit has already been adjusted or not	1 byte	0: Adjusted, 1: Not adjusted
3	With/without backup of adjustment data	1 byte	0: With backup, 1: Without backup
4	Power-down information	2 byte	1st byte: 1st PD, 2nd byte: 2nd PD
5	Temperature information (TEMP1)	3 byte	000 to 255
6	Abnormality in RST2 (power decrease of the DC-DC converter)	1 byte	0: Normal, 1: Shutdown process caused by an abnormality completed, 2: In the process of displaying a warning against shutdown caused by an abnormality
7	IC4 communication failure	1 byte	
8	EEPROM communication failure	1 byte	
9	Failure in audio	1 byte	
10	Communication failure of the volume IC	1 byte	
11	Backup-ROM communication failure	1 byte	
12	Failure in temperature information (TEMP1)	1 byte	0: Panel protection not activated, 1: Panel protection being activated
13	Activation of panel protection	1 byte	
14	(Reservation)	9 byte	*****
15	Hour meter	7 byte	1st-5th bytes: Hour, 6-7th bytes: Minute

• Power-down information

Data	Power-down point
0	No power-down
1	Not used
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	Reservation
E	Reservation
F	Power-down point not identified

GPM: Value of the pulse meter

Order	Data	Size
1	Pulse meter (Block area 1)	10 byte
2	Pulse meter (Block area 2)	10 byte
3	Pulse meter (Block area 3)	10 byte
4	Pulse meter (Block area 4)	10 byte
5	Pulse meter (Block area 5)	10 byte

Note:

The number of electric discharges at each block is displayed. The first digit represents the number of tens of thousands.

[Location of the block areas from which values from the pulse meter are obtained]

Block ①															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
Block ⑤															

GPC: Number of times the power was turned on

Order	Data	Size
1	Power-on counter	8 byte

GAJ: Drive-related adjustment values

Order	Data	Size
1	ABL table currently used	3 byte
2	Upper limit of the power	3 byte
3	Vsus adjustment value	3 byte
4	Vofs adjustment value	3 byte
5	X-SUS-U1 adjustment value (XU1)	3 byte
6	X-SUS-U2 adjustment value (XU2)	3 byte
7	X-SUS-D2 adjustment value (XD2)	3 byte
8	X-SUS-D1 adjustment value (XD1)	3 byte
9	Y-SUS-U1 adjustment value (YU1)	3 byte
10	Y-SUS-U2 adjustment value (YU2)	3 byte
11	Y-SUS-D1-2 adjustment value (YD2)	3 byte
12	Y-SUS-D1-1 adjustment value (YD1)	3 byte
13	Y-SUS-D2-2 adjustment value (YD4)	3 byte
14	Y-SUS-D2-1 adjustment value (YD3)	3 byte

• Details on "ABL table"

Data	Table
AB1	ABL table for 60Hz, 72Hz and 75Hz video
AB3	ABL table for PC

LIST OF RS-232C COMMAND

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
[A]			○	000	255
ABL		Adjusting power consumption			
ADC		AD MAIN CONTRAST adjustment			
AMT	S00	Cancelling the audio mute			
AMT	S01	Executing the audio mute			
AST		Executing the auto setup			
[B]					
BCP		Transmitting the backup data to the DIGITAL VIDEO Assy			
BSL		Adjusting the side mask B	○	000	255
BYG		Adjusting the BY GAIN	○	000	255
[C]					
CHM		Clearing the hour meter			
CNG		Clearing the MR NG information			
CPC		Clearing the power-on counter			
CPD		Clearing the power-down information			
CPM		Clearing the pulse meter			
CTM		Clearing the remodeling log			
[D]					
DRF		Turning off the power for the drive system			
DRN		Turning on the power for the drive system			
DW0		Decreasing the adjustment value by 10			
DWn		Decreasing the adjustment value by n			
DWF		Minimizing the adjustment value			
DYR	S00	D-range correction NO			
DYR	S01	D-range correction YES			
[E]					
EDW	S00	Prohibiting the writing of EDID data			
EDW	S01	Permitting the writing of EDID data			
[F]					
F48		Video 48-Hz sequence			
F50		Video 50-Hz sequence			
F60		Video 60-Hz sequence			
F61		PC 60-Hz sequence			
F70		PC 70-Hz sequence			
F72		Video 72-Hz sequence			
F75		Video 75-Hz sequence			
FAJ		Determining the main unit adjustment			
FAN		Turning the Service Factory mode off			
FAY		Turning the Service Factory mode on			
FCA		Turning the fan roll control to auto			
FCM		Maximizing the fan roll control			
FST		Executing the FINAL SETUP			
[G]					
GAJ		Obtaining the adjustment values for the panel			
GAS		Obtaining the IC4 status			
GDI		Command for obtaining the command			
GMM		Switching the gamma	○	000	007
GNG		Obtaining the shut down (NG) information			
GNP		Obtaining the serial number of the panel			
GPC		Obtaining the value of P ON COUNTER			

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
GPD		Obtaining the power-down information			
GPM		Obtaining the PULSE METER data			
GPP		Obtaining the PD polling log for module			
GPW		Obtaining the PANEL W/B data			
GS1		Obtaining the version data for each device			
GS2		Obtaining the each operating information			
GSL		Adjusting the side mask GREEN	○	000	255
GYG		Adjusting the GY GAIN	○	000	255
[I]					
INP		Indicating the input function of current main screen			
INP	S01	Switching the main screen to Input 1			
INP	S02	Switching the main screen to Input 2			
INP	S03	Switching the main screen to Input 3			
INP	S04	Switching the main screen to Input 4			
INP	S05	Switching the main screen to Input 5			
[M]					
MSK	S00	Mask mode: OFF			
MSK	S01	White: 0 to 100%			
MSK	S02	Aging mask (detection of still picture: OFF)			
MSK	S03	Aging mask			
MSK	S04	Aging mask (detection of still picture: OFF)			
MSK	S10	RAMP slant 1			
MSK	S11	RAMP slant 4			
MSK	S12	RAMP slant 1 shifting			
MSK	S13	RAMP slant 4 shifting			
MSK	S14	V RAMP			
MSK	S15	H/V RAMP			
MSK	S20	Window (for W/B adjustment High: 870, Low: 102)			
MSK	S21	Window (for W/B adjustment High: 1023, Low: 102)			
MSK	S22	Window (for the peak luminance measurement of WB stage High: 1023)			
MSK	S23	Window (for the peak luminance measurement High: 1023 4%)			
MSK	S24	Window (for the peak luminance measurement High: 1023 1.25%)			
MSK	S25	Window-1/7 vertical window (for stress measurement)			
MSK	S26	Window (magenta, green, stripe for checker)			
MSK	S27	Window (green, magenta, stripe for checker)			
MSK	S28	Window (black & white [1 x 8], checkered pattern [for EMG check])			
MSK	S29	Window (for W/B adjustment, magenta=512, yellow=512)			
MSK	S40	Wiper to prevent phosphor burn			
MSK	S30	Color Bar			
MSK	S31	Slanted lines (breaking of wire check)			
MSK	S51	Raster-white			
MSK	S52	Raster-red			
MSK	S53	Raster-green			
MSK	S54	Raster-blue			
MSK	S55	Raster-black			
MSK	S56	Raster-cyan			
MSK	S57	Raster-magenta			
MSK	S58	Raster-yellow			
MSK	S59	Raster-cyan 274			

A

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
MSK	S60	Raster-50 flesh color			
MSK	S61	Raster-50 light purple			
MSK	S62	Raster-50 sky blue			
MSK	S63	Raster-red 779			
MSK	S64	Raster-cyan 218			
MSK	S65	Raster-cyan 448			
MSK	S66	Raster-43 flesh color			
MSK	S67	Raster-red 640			
MSK	S68	Raster-magenta 98			
MSK	S69	Raster-43 sky blue 1			
MSK	S70	Raster-43 sky blue 2			
MSK	S71	Raster-43 light purple			
MSK	S72	Raster-blue 960			
MSK	S73	Raster-gray 511 (spare)			
MSK	S74	Raster-gray 511 (spare)			
MBG		AD MAIN B GAIN	○	000	255
MBO		AD MAIN B OFFSET	○	000	255
MGG		AD MAIN G GAIN	○	000	255
MGO		AD MAIN G OFFSET	○	000	255
MRG		AD MAIN R GAIN	○	000	255
MRO		AD MAIN R OFFSET	○	000	255
[N]					
NGN		Prohibiting the shut down operation			
[O]					
OSD	S00	Turning the OSD indication off			
OSD	S01	Turning the OSD indication on			
[P]					
PLT	S00	PEAK LIMITER OFF			
PLT	S01	PEAK LIMITER ON			
PBH		Panel W/B B-HIGH adjustment	○	000	511
PBL		Panel W/B B-LOW adjustment	○	000	999
PDN		POWER DOWN NO			
PDY		POWER DOWN YES			
PGH		Panel W/B G-HIGH adjustment	○	000	511
PGL		Panel W/B G-LOW adjustment	○	000	999
PL0		Adjusting the brightness setting to 0			
PL1		Adjusting the brightness setting to 1			
PL2		Adjusting the brightness setting to 2			
PL3		Adjusting the brightness setting to 3			
PL4		Adjusting the brightness setting to 4			
PL5		Adjusting the brightness setting to 5			
PLA		Center luminance correction ON (APL interlocking OFF)			
PLN		Center luminance correction OFF			
POF		Turning the power OFF			
PON		Turning the power ON			
PRH		Panel W/B R-HIGH adjustment	○	000	511
PRL		Panel W/B R-LOW adjustment	○	000	999

F

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
[R]					
RSL		Adjusting the side mask RED	○	000	255
RYG		RY GAIN	○	000	255
[S]					
SBG		AD SUB B GAIN	○	000	255
SBO		AD SUB B OFFSET	○	064	191
SFI		Initializing the full mask table			
SFT		Indicating the current signal format			
SFT	S01	Setting the signal format to PC FORMAT1 (VGA or XGA or SXGA or 720-PC)			
SFT	S02	Setting the signal format to PC FORMAT2 (WVGA or WXGA or SXGA+)			
SFT	S03	Setting the signal format to VIDEO 525p or VIDEO 750p			
SFT	S04	Setting the signal format to PC AUTO			
SGG		AD SUB G GAIN	○	000	255
SGO		AD SUB G OFFSET	○	064	191
SIP		Indicating the current function type			
SIP	S04	Input switching auxiliary (PC)			
SIP	S05	Input switching auxiliary (HDMI)			
SN0		Setting 1, 2, or 3 for the serial number of the panel			
SN1		Setting 4, 5, or 6 for the serial number of the panel			
SN2		Setting 7, 8, or 9 for the serial number of the panel			
SN3		Setting 10, 11, or 12 for the serial number of the panel			
SN4		Setting 13, 14, or 15 for the serial number of the panel			
SPI		Initializing the video EEPROM data			
SRG		AD SUB R GAIN	○	000	255
SRO		AD SUB R OFFSET	○	064	191
SWM		Full-screen display of main output			
SWS		Full-screen display of sub output			
SZM		Indicating the current screen size setting			
SZM	S00	Setting the screen size to Dot by Dot or PARTIAL			
SZM	S01	Setting the screen size to 4:3			
SZM	S02	Setting the screen size to FULL or FULL1080i			
SZM	S03	Setting the screen size to ZOOM			
SZM	S04	Setting the screen size to CINEMA			
SZM	S05	Setting the screen size to WIDE			
[T]					
TSN		Trap SW is invalid			
TSY		Trap SW is valid			
[U]					
UAJ		Return the DIGITAL VIDEO Assy to service parts			
UP0		10 adds adjustment value			
UPn		n adds adjustment value			
UPF		Maximizing the adjustment value			

A

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
[V]					
VMT	S00	Cancelling the panel mute			
VMT	S01	Executing the panel mute			
VOF		Offset voltage adjustment	○	000	255
VOL	***	Adjusting the audio volume	○	000	060
VSG		CVY GAIN	○	064	191
VSO		CVY OFFSET	○	000	255
VSU		SUS voltage adjustment	○	000	255
[W]					
WAN		WBL-APL interlocking prohibition			
WAY		WBL-APL interlocking permission			
[X]					
XD1		D1 trailing-edge pulse of X-SUS			
XD2		D2 trailing-edge pulse of X-SUS			
XU1		U1 leading-edge pulse of X-SUS			
XU2		U2 leading-edge pulse of X-SUS			
[Y]					
YD1		D1 trailing-edge pulse of Y-SUS			
YD2		D2 trailing-edge pulse of Y-SUS			
YD3		D3 trailing-edge pulse of Y-SUS			
YD4		D4 trailing-edge pulse of Y-SUS			
YU1		U1 leading-edge pulse of Y-SUS			
YU2		U2 leading-edge pulse of Y-SUS			

B

C

D

E

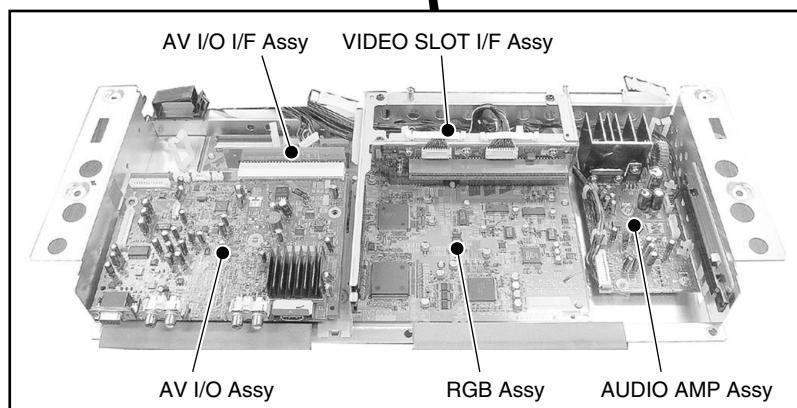
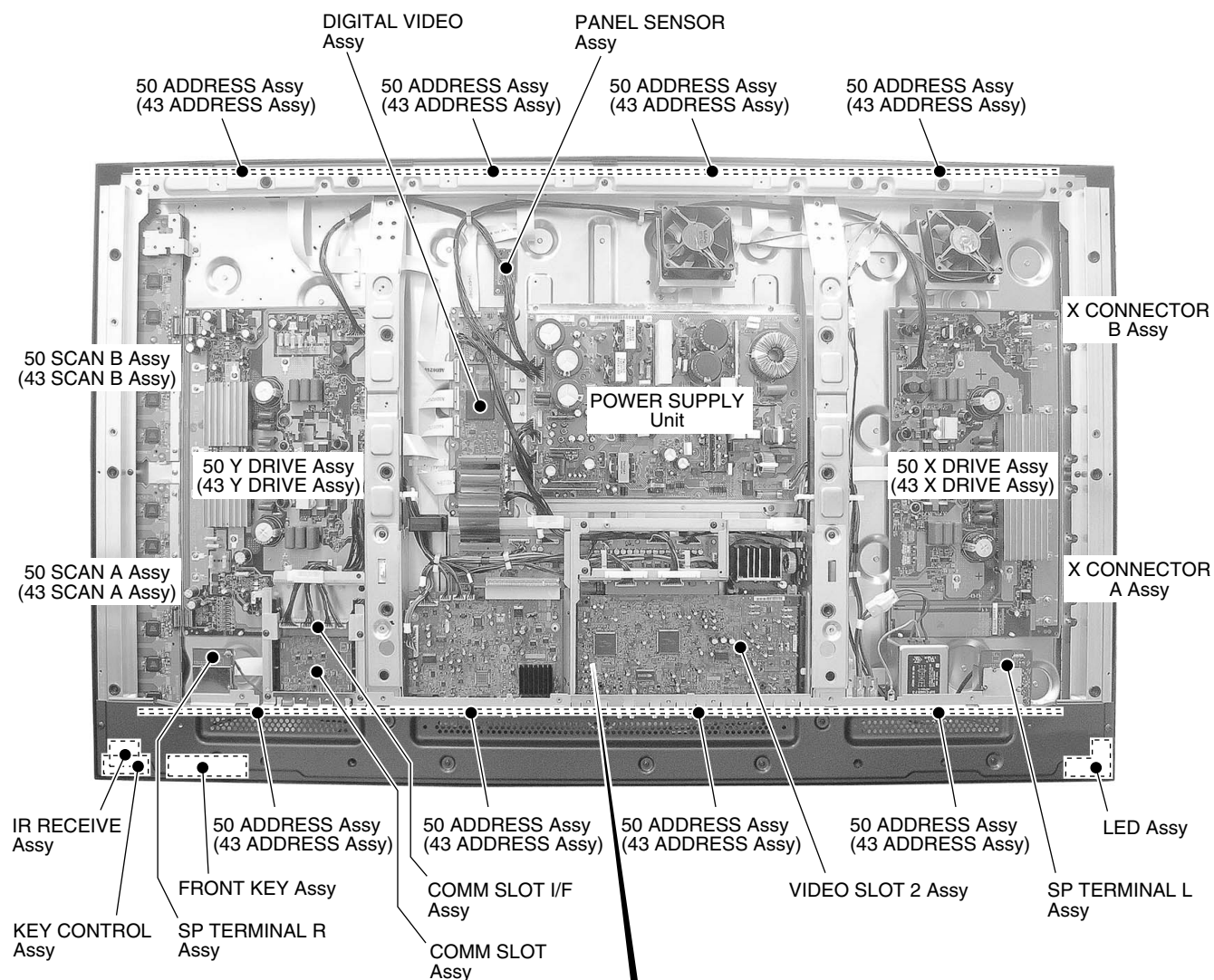
F

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 CONFIGURATION OF THE PC BOARD

Note : This illustration is PDP-5004.



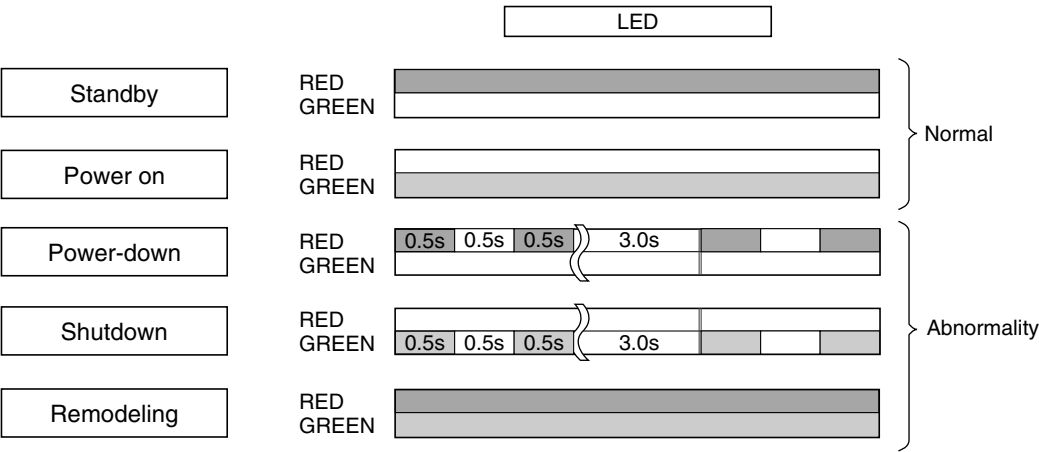
● Rear view

1 2 3 4

7.1.2 DIAGNOSIS FOR SHUTDOWN AND POWER-DOWN BY LED

• Operation statuses indicated by LEDs

A



Note: [Red box] : Lit in red [Green box] : Lit in green [White box] : Not lit

C

D

E

F

• Identification of locations having abnormality by the number of times the LEDs flash

■ On Shutdown and power-down

Shutdown

- Operation: When the microcomputer detects any abnormality, it forcibly shuts the unit off.
- LED indication: The LED flashes in green.

Note: The LED flashes regardless of the FRONT INDICATOR setting on the Integrator menu.

Power-down

- Operation: When the unit is in emergency status, a protection circuit is activated, and the power is shut off.
- LED indication: The LED flashes in red.

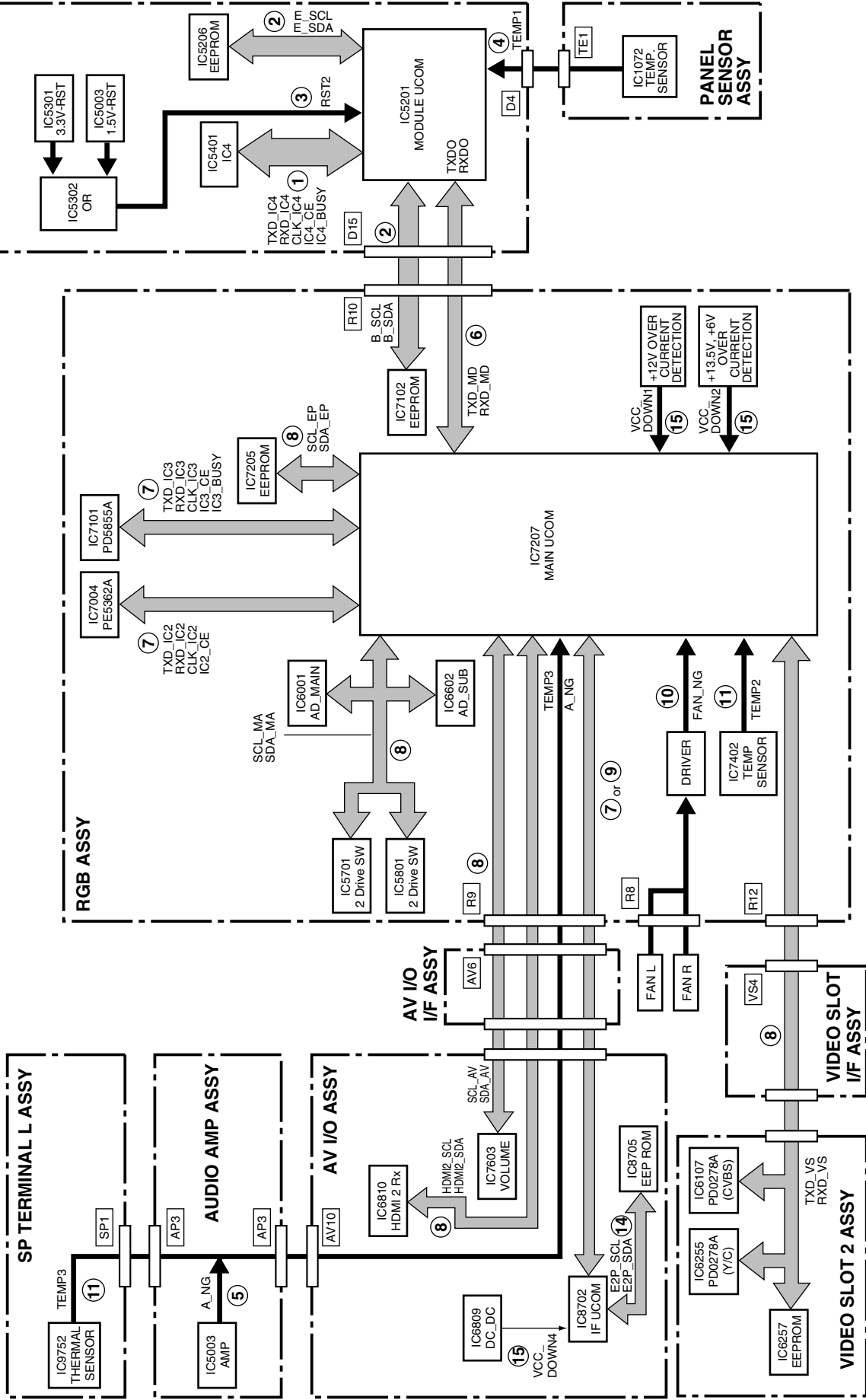
Category	LED		Content	Unit's Operation	Warning Message
	STB	ON			
SD		Once	Communication failure of the panel-drive IC	Shutdown 3 seconds after warning	Shutdown by circuit failure (01)
		Twice	Communication failure of the module IIC	Shutdown 3 seconds after warning	Shutdown by circuit failure (02)
		3 times	Power decrease of the digital DC-DC converter	Immediate shutdown	
		4 times	Panel having high temperature	Shutdown 30 seconds after warning	Shutdown by warning temperature rise (04)
		5 times	Audio failure	Shutdown 3 seconds after warning	Shutdown by warning speaker failure (05)
		6 times	Communication failure of the module microcomputer	Shutdown 3 seconds after warning	Shutdown by circuit failure (06)
		7 times	Main 3-wire serial communication in failure	Shutdown 3 seconds after warning	Shutdown by circuit failure (07)
		8 times	Communication failure of the main IIC	Shutdown 3 seconds after warning	Shutdown by circuit failure (08)
		9 times	Communication failure of the main microcomputer	Immediate shutdown	
		10 times	Fan in failure	Shutdown 3 seconds after warning	Shutdown by warning fan abnormality (10)
		11 times	Unit having higher temperature	Shutdown 30 seconds after warning	Shutdown by warning temperature rise (11)
		13 times	Main microcomputer ASIC power supply NG	Immediate shutdown	
		14 times	Communication failure of IF-EEPROM	Shutdown 3 seconds after warning	Shutdown by circuit failure (14)
		15 times	Other failure	Shutdown 3 seconds after warning	Shutdown by circuit failure (15)
PD	Once				
	Twice		Power	Immediate power-down	
	3 times		SCAN	Immediate power-down	
	4 times		SCAN-5V	Immediate power-down	
	5 times		Y-DRIVE	Immediate power-down	
	6 times		Y-DCDC	Immediate power-down	
	7 times		Y-SUS	Immediate power-down	
	8 times		ADDRESS	Immediate power-down	
	9 times		X-DRIVE	Immediate power-down	
	10 times		X-DCDC	Immediate power-down	
	11 times		X-SUS	Immediate power-down	
	12 times		DIGITAL-DCDC	Immediate power-down	
	15 times		UNKNOWN (Not identified) *	Immediate power-down	

* If the unit cannot identify which protection circuit was activated, even if a power-down had been detected, the red LED may flash 15 times.

• Block diagram of the shutdown signal system

Note:

The figures ① - ⑮ indicate the number of times the LED flashes when shutdown occurs in the corresponding route.



- **Diagnosis of shutdown**

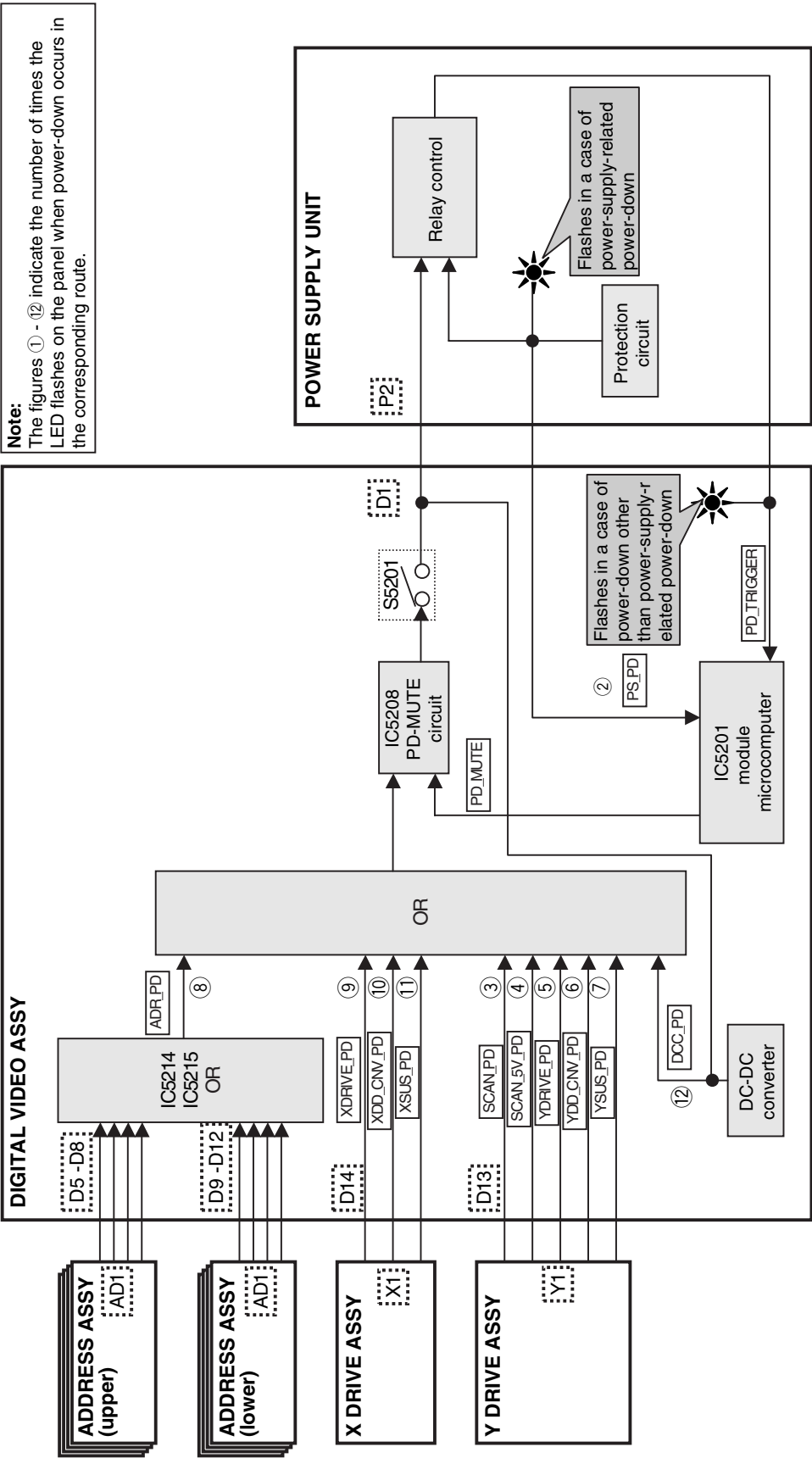
SD Circuit in Operation			Defective Assy		Reason for Shutdown		Point to be Checked		Possible Defective Part		Remarks
1	Communication failure of the panel-drive IC	DIGITAL VIDEO	Communication failure of IC4 or defective peripheral circuits	IC4 Block, Panel Flash Block	IC5401, IC5305						After turning the unit on again, check if the data on the version can be read with the GS1 command.
			Writing failure of IC4								
2	Communication failure of the module IC (Check the shutdown subcategory on the Factory menu.)	DIGITAL VIDEO	Communication failure of the EEPROM (4k) or defective peripheral circuits	Module Ucom Block	IC5206						
		RGB	Communication failure of the EEPROM (2k) or defective peripheral circuits	IC3 Block	IC7102						
			Defective 114-pin FPC	CN400(D15) - CN7101(R10)	ADY1081						Check if the cable is disconnected or not securely connected.
		DIGITAL VIDEO	Defective DC-DC converter	Digital DD Control Block	U601						Check if 3.3V, 2.5V, and 1.5V are activated (not short-circuited).
3	Power decrease of DIGITAL-DC-DC	DIGITAL VIDEO	Defective RST IC	Panel Flash Block	IC5301, IC5302, IC5303						
4	Panel having higher temperature	POWER SUPPLY	No startup of 12 V								
		DIGITAL VIDEO	Disconnection of cable	CN5202 - CN1071							
			Panel having higher temperature	Surrounding temperature							Temperature detected by a sensor must not exceed 90°C (TEMP1).
			Speaker short-circuited	Speaker terminals							Check if the speaker cables are in contact with the chassis, etc.
5	Audio failure	AUDIO AMP	Defective AMP IC	Audio Amp	IC5003						
		AUDIO AMP	Disconnection of cable	CN7601(AV1) - CN5001(AP2)							Check if the cable is disconnected or not securely connected.
		DIGITAL VIDEO	Communication failure in the module microcomputer or defective peripheral circuits	Module Ucom Block	IC5201						Check short/open of the communication line (TXDO/RXDO).
6	Communication failure of the module microcomputer		Failure in writing in the module microcomputer	Module Ucom Block	IC5201						
		AV I/O	Defective 114-pin FPC	CN4004(D15) - CN7101(R10)	ADY1081						Check if the cable is disconnected or not securely connected.
			Communication failure in the IF microcomputer or defective peripheral circuits	IF Ucom Block	IC8702						Check short / open of the communication line (TXD_IF/RXD_IF/CLK_IF/BUSY_IF/CE_IF)
7	Serial communication failure of the 3-wire of the main microcomputer	RGB	Communication failure in the CELIA or defective peripheral circuits	IC2 Block	IC7004						Check short / open of the communication line (TXD_IC2/RXD_IC2/CLK_IC2/CE_IC2)
		RGB	Communication failure in the MIKE or defective peripheral circuits	IC3 Block	IC7101						Check short / open of the communication line (TXD_IC3/RXD_IC3/CLK_IC3/BUSY_IC2/CE_IC3)
		RGB	Failure in writing in the MIKE	IC3 Block	IC7101						
		VIDEO SLOT2	Failure in MICHAEL Y/C or defective peripheral circuits	IC1 (Y/C) Block	IC8255						
		VIDEO SLOT2	Failure in MICHAEL CVBS or defective peripheral circuits	IC1 (Y/C) Block	IC6107						
		RGB	Failure in AD MAIN or defective peripheral circuits	Main AD Block	IC6001						
		RGB	Failure in AD SUB or defective peripheral circuits	Sub LPF & AD Block	IC6602						
		RGB	Failure in ROZ or defective peripheral circuits	Bus SW1 Block	IC5701						
8	IIC communication failure of the main microcomputer (Confirm the SD subcategory in the factory menu)	RGB	Failure in ROZ or defective peripheral circuits	Bus SW2 Block	IC5801						
		AV I/O	Failure in VOL IC or defective peripheral circuits	AV I/O Assy	IC7603						
		AV I/O	Failure in HDMI Rx IC or defective peripheral circuits	IC8810 Block	IC8810						
		RGB	Failure in EEPROM or defective peripheral circuits	Main Ucom Block	IC7205						
		VIDEO SLOT2	Failure in EEPROM or defective peripheral circuits	IC1 (Y/C) Block	IC8257						
			Defective communication line between any of the above devices and the main microcomputer		IC7207						Check short / open of SCL_AV/SDA_AV, SCL_MA/SDA_MA and SCL_FP/SDA_FP

SD Circuit in Operation	Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
9	RGB	Communication failure in main microcomputer or defective peripheral circuits	Main Ucom Block	IC7207	Check short / open of communication line (TXD_IF/RXD_IF/CLK_IF/BUSY_IF/CE_IF/REQ_IF)
	RGB	Failure in writing in the main microcomputer	Main Ucom Block	IC7207	
10	FAN	Failure in the fan motor or fan stopped by attached dust			
	RGB	Disconnection of cable	Relay part between CN7402 (R8) and the wire from the fan		Check if the cable is disconnected or not securely connected.
11		Use under high temperature	Surrounding/internal temperature		Temperature detected by a sensor must not exceed 65°C (TEMP3) / 95°C (TEMP2)
	AUDIO AMP	Disconnection of cable	CN5003(AP3) - CN8702(SP1)		Check if the cable is disconnected or not securely connected.
14	AV I/O	Communication failure in EEPROM or defective peripheral circuits	I/F Ucom Block	IC8705	Check short / open of E2P_SCL/E2P_SDA
	VCC-D1				Check for shortcircuits in the 12V system.
15	RGB	Defective circuits in the 12V system			
	VCC-D2	Defective circuits in the 13.5V and 6.5V systems.			Check for shortcircuits in the 13.5V and 6.5V systems.
	VCC-D4	Defective circuits in the 3.3V system of HDMI 2.			Check for shortcircuits in the 3.3V system of HDMI 2.

● Diagnosis of abnormalities other than shutdown and power-down

Symptoms	Defective Assy	Abnormal Summary	Point to be Checked	Possible Defective Part	Remarks
No power (LED unit)		Disconnection of cable	CN7404		Check if the connection between the POWER SUPPLY and RGB assemblies is properly made.
	POWER SUPPLY	STB 3.3 V not started	CN7404(AV1)-11 pin		
No power (The LED remains lit in red and does not light in green.)	AV I/O	Defective I/F microcomputer	I/F Ucom Block	IC8702	Check if the oscillation is normal (X8701 = 32 kHz, X8702 = 9.8 MHz) and if RESET is set to H (IC8703).
	RGB	Defective main microcomputer	Main Ucom Block	IC7207	If communication with the main microcomputer fails approx. 20 seconds after the AC power is on, the main microcomputer may be defective.
No power (The LED remains lit in red and dgreen.)		Detect Trap switch	CN7204		Check if the TRAP switch is secured in its position correctly. See "7.1.8 How to cancel the TRAP switch."
		Defective Trap switch		ASG1089	Check if the unit operates normally when the TRAP switch is canceled. See "7.1.8 How to cancel the TRAP switch."
Key input not effective		Disconnection of cable	CN4801 - CN9002 CN9001 - CN8702		Check if the cables are not connected or securely connected.
Remote control unit not effective	IR RECEIVE	Disconnection of cable	CN4901 - CN8901		Check if the cable is not connected or securely connected.
		Defective IR receiver section	IR	U4901	Check if a pulse is output when the key corresponding to Pin 3 of the CN4901 is pressed.
Abnormality in a one-eighth area of the screen	DIGITAL VIDEO	Defective IC4	IC4 Block	IC5401	Check if an abnormal area in the screen changes when the FPC connected to the address corresponding to the abnormal area is replaced with the one corresponding to the next address.
	ADDRESS				Check that an abnormal area in the screen does not change when the FPC connected to the address corresponding to the abnormal area is replaced with the one corresponding to the next address.
Abnormal screen (Data of every other dot are abnormal)		Defective 114-pin FPC	CN7101 - CN5001	ADY1081	Check if the FPC is broken or not securely connected.

• Block diagram of the power-down signal system



• Power-down diagnosis (defective points)

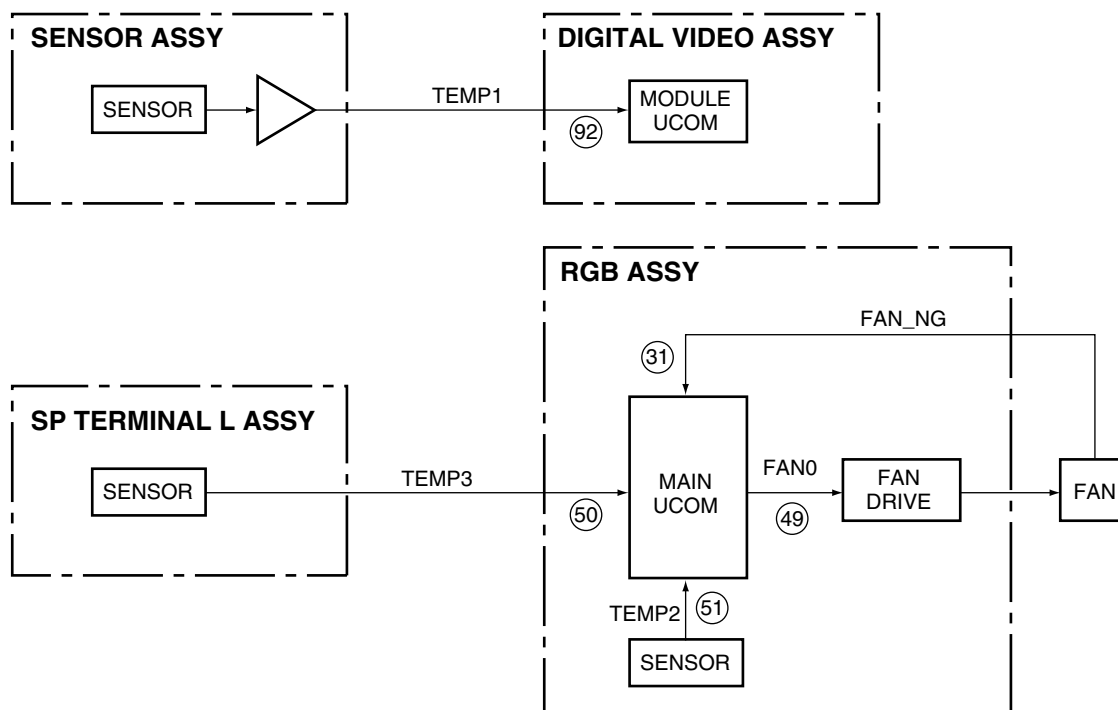
Note: 50 (43) *** Assy means 50 *** Assy or 43 *** Assy.

PD Circuit in operation	Defective Assy	Reason for Power-down	Point to be Checked	Possible Defective Part	Remarks
1 NONE					
2 POWER	POWER SUPPLY Unit				If the elapsed time from relay-on until the LED in the power supply unit lights is about 2-4 seconds, the defective assembly may be the 50 (43) X or Y DRIVE.
	50 (43) X DRIVE Assy	VSUS UVP	X SUS BLOCK	IC1203 - IC1207 (mask module)	
	50 (43) Y DRIVE Assy	VSUS UVP	Y SUS BLOCK	IC2303 - IC2307 (mask module)	
3 SCAN	50 (43) SCAN A, B Assy or Y 50 (43) DRIVE Assy	VH UVP	SCAN IC	SCAN IC	
		VH UVP	VH DC/DC	IC2401, IC2402, IC2410, L2401	
		Disconnection of cable detected	CN2001, CN2301		
4 SCN-5V	50 (43) SCAN A, B Assy or 50 (43) Y DRIVE Assy	Disconnection of cable detected	CN2101, CN2102		
		IC5V UVP	SCAN IC, IC5V DC/DC Y SUS BLOCK	SCAN IC, Q2401, Q2402, IC2304, IC2309	
		IC5V OVP	IC5V DC/DC	IC2403, IC2411	
5 Y-DRIVE	50 (43) Y DRIVE Assy	+16.5V OCP	Y SUS BLOCK	IC2303 - IC2307 (mask module), IC2301, IC2304, R2309	
		VOFS UVP	VOFS DC/DC	IC2404, IC2412, Q2404, Q2407	
		VOFS OVP	VOFS DC/DC	IC2404, IC2412	
6 Y-DCDC	50 (43) Y DRIVE Assy	VH OVP	VH DC/DC	IC2402, IC2410	
		Power-down caused by detection of middle-point voltage	Y RESONANCE BLOCK	Q2202, Q2214, Q2205, Q2206, Q2208, Q2209, Q2211, Q2212, IC2201, IC2202, Control signal series resistors	
7 Y-SUS	50 (43) Y DRIVE Assy	Power-down caused by detection of middle-point voltage	DIGITAL VIDEO Assy	IC5401, Control signal series resistors	
	DIGITAL VIDEO Assy	Disconnection of cable detected	CN1501		
8 ADRS	50 (43) ADDRESS Assy	Power-down caused by detection of a power surge	ADR RESONANCE BLOCK	R1631, Q1601, D1602	
		Power-down caused by detection of middle-point voltage	ADR RESONANCE BLOCK	Q1602, C1609, D1606, D1607	
		Disconnection of cable detected	CN1001, CN1201		
9 X-DRIVE	50 (43) X DRIVE Assy	+16.5V OCP	X SUS BLOCK	IC1203, IC1207 (mask module), IC1204, IC1206, R1230	
		VRN OCP	X SUS BLOCK	Q1205, R1226, R1251	
		VRN OVP	VRN DC/DC	IC1403, IC1404	
10 X-DCDC	50 (43) X DRIVE Assy	VRN UVP	VRN DC/DC	IC1402, IC1403, IC1404	
			X SUS BLOCK	Q1205, R1226, R1251	
		Power-down caused by detection of middle-point voltage	X RESONANCE BLOCK	Q1102, Q1103, Q1105, Q1106, Q1108, Q1109, Q1111, Q1112, IC1101, IC1102, Control signal series resistors	
11 X-SUS	50 (43) X DRIVE Assy	Power-down caused by detection of middle-point voltage	DIGITAL VIDEO Assy	IC5401, Control signal series resistors	OVP : Over Voltage Protection UVP : Under Voltage Protection OCP : Over Current Protection
	DIGITAL VIDEO Assy	Power-down caused by detection of middle-point voltage	DIGITAL VIDEO Assy	IC5401, Control signal series resistors	
12 DIG-DCDC	DIGITAL VIDEO Assy	DCDC +3.3V, +1.5V OVP	DC DC CONVERTER BLOCK	U5601 (DC DC CONVERTER Module)	

7.1.3 PROCESSING AT THE TIME OF ABNORMALITIES

Fan and temperature sensor

● Circuitry



● Port monitoring specifications

Port Name	Shutdown Name	Assign	Control Microcomputer	Active	Remarks
FAN_NG	FAN	31	Main	Shutdown when the signal becomes high	Disconnection of the fan connector or abnormality in operation of the fan detected
TEMP1	Unit under high temperature	92	Module	Shutdown when the set value is exceeded	Monitoring high temperature of the panel, Drive system temperature compensation
TEMP2	Unit under high temperature	51	Main		Monitoring high temperature of boards
TEMP3	Unit under high temperature	50	Main		Monitoring ambient temperature

7.1.4 TEMPERATURE COMPENSATION OF DRIVE SYSTEM VOLTAGE

Function: To control the DRIVE-system voltage according to the temperature (Temperature compensation functions such that the voltage is lowered on the lower-temperature side and the voltage becomes higher on the higher-temperature side.)

Purpose: For improving the yield by compensating for the temperature characteristics of the panel

Note:

- Temperature compensation is performed only for the VSUS voltage, and not for the VOFS voltage. This compensation is controlled by the software.
- Temperature compensation is carried out with the value of TEMP1.

7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM

Function: Only the power for the low voltage lines (16 V, 12 V, and 6.5 V) is on, and the power for the high voltage lines (VSUS, VADR) is off.

Usage:

1. Use when only an operational check for the low voltage lines is required, such as when making repairs.
2. Use when rewriting of a program for each microcomputer is required.

Methods:

- 1 Set the slide switch (S5201) on the DIGITAL VIDEO Assy to its upper position ("DRF" is mentioned on the board see Fig. below).
2. Send the "DRF" RS232C command to turn the large-signal system off.
3. Send the "DRN" RS232C command to turn the large-signal system on.

Notes:

- As the unit enters Power-Down and Muting On mode when Methods 1 and 2 are performed, and power-downs other than those caused by the power (PS_PD) and DC-DC-converter (DIGITAL_DC-DC) circuits are not activated.
- If the slide switch is set from OFF to ON while the power is on, a power-down will occur. Be sure to turn the power off before switching the slide switch.
- Although the "DRF" RS232C command is enabled during Standby, if the power is turned on then turned off, the unit will return to "DRN" mode.

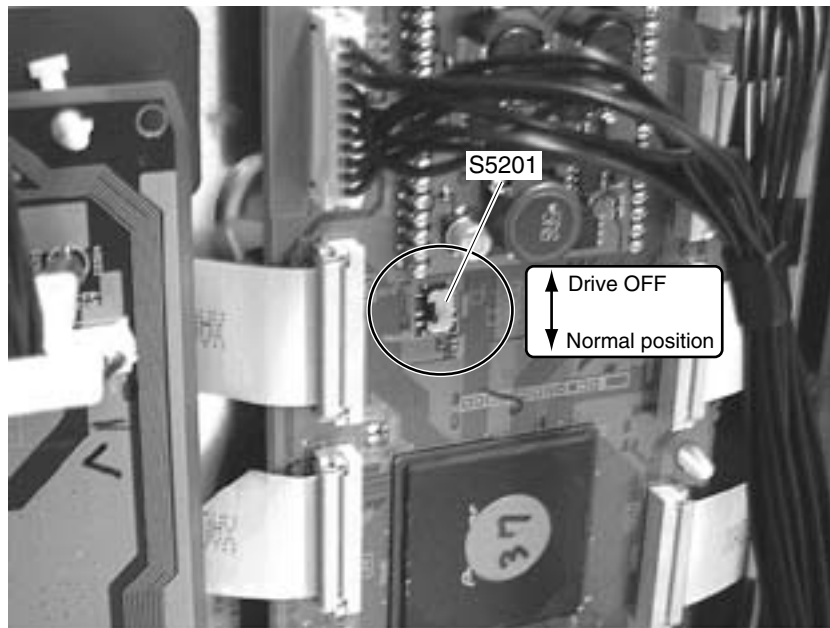


Fig. Drive OFF switch

Outline

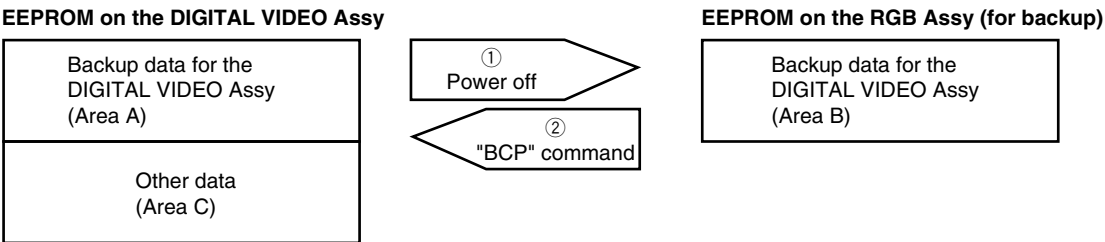
The data on the adjustment values for the main unit are stored in an EEPROM (IC5206, 4 kbits) on the DIGITAL VIDEO Assy. Part of the data (area A in the figure below) are automatically copied to an EEPROM (IC7102, 2 kbits) mounted on the RGB Assy for backup. When the DIGITAL VIDEO Assy is replaced, the backup data on the adjustment values for the main unit stored in the RGB Assy can be copied to the new DIGITAL VIDEO Assy, thus enabling you to omit newly performing adjustments on the main unit. The logs for the product (power-down log, etc.) can also be copied.

Data to be backed up in the digital EEPROM (area A)

- Margin adjustment values (V_{sus}, V_{ofset})
- Power upper-limit adjustment value (ABL)
- PANEL white-balance adjustment values (PANEL-R HIGH, PANEL-G HIGH, PANEL-B HIGH, PANEL-R LOW, PANEL-G LOW, PANEL-B LOW)
- Drive waveform adjustment values (X-SUS-U1, X-SUS-U2, X-SUS-D1, X-SUS-D2, Y-SUS-U1, Y-SUS-U2, Y-SUS-D1, Y-SUS-D2, Y-SUS-D3, Y-SUS-D4)
- Hour meter
- Pulse meter
- Number of times the power has been turned on
- PD/SD logs

Basic flow of automatic backup

Using a keyword, the data in areas A and B are judged as to whether they have been adjusted or not, then copying is performed.

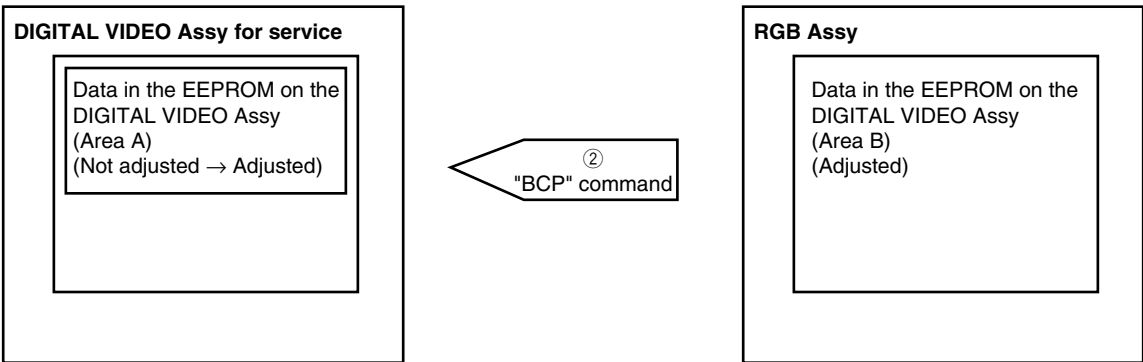


- ① The keyword on the DIGITAL VIDEO Assy is checked when the power is turned off, and if it is "adjusted", automatic backup is performed.
- ② If the keyword on the RGB Assy (Area B) is "adjusted," copying can be performed with the "BCP" RS232C command.

Actual automatic backup operations

1. When the DIGITAL VIDEO Assy is replaced with an Assy for service

Changing of keywords is not required. Replace the DIGITAL VIDEO Assy with an Assy for service, and send the "BCP" RS232C command. Thus, the backup data in the EEPROM on the RGB Assy are copied to the EEPROM on the DIGITAL VIDEO Assy for service.



2. When a repaired DIGITAL VIDEO Assy is mounted on another unit (reuse of the repaired DIGITAL VIDEO Assy)

The keyword of the DIGITAL VIDEO Assy to be reused must be changed to "not adjusted" using the "UAJ" RS232C command.

Note 1: If a repaired DIGITAL VIDEO Assy is mounted in another unit (Unit 2) without this change of keyword, and the power to the unit 2 is turned off, the data in force before the repair of the DIGITAL VIDEO Assy will be copied to Area B of the RGB Assy of Unit 2, overwriting the data necessary for Unit 2. Once overwritten, the original data will not be restored.

3. When a repaired DIGITAL VIDEO Assy is mounted on the original unit (reuse of the repaired DIGITAL VIDEO Assy)
Changing of keywords is not required. After the repaired DIGITAL VIDEO Assy is mounted in the original unit, the unit can operate with its latest adjustment values.

4. When both the DIGITAL VIDEO Assy and RGB Assy are simultaneously replaced with other assemblies
The automatic backup function of this unit will not work properly.

Note 2: Readjustment of the main unit is required.

Note 3: After readjustment of the main unit, send the "FAJ" RS232C command to change the keyword of the DIGITAL VIDEO Assy to "adjusted." Thus, when the unit is turned off, automatic backup of adjustment data is performed properly.

Note 4: If readjustment of the main unit is totally impossible, it can be omitted by installing the EEPROM (IC5206, 4 kbits) originally mounted on the DIGITAL VIDEO Assy for service.

Note 5: After copying the backup data, turn the power off then back on to reflect the copied backup data.

B ■ Miscellaneous

If the white balance (W/B) value is largely shifted because of aging, etc., W/B adjustment is required. (As this may be a rare case, the adjustment procedures are described below, just for your reference.)

[W/B-adjustment procedures]

The W/B adjustment can be performed with the RS232C commands. Minolta CA-100 color difference meter are required.

- ① Send the "FAY" RS232C command to enter Factory mode.
- ② Set the keyword for the DIGITAL VIDEO Assy to "not adjusted" with the "UAJ" RS232C command.
- ③ Obtain the current adjustment values in the two adjustment tables (see "6.6 Command Description").
 - Shifting to Table 1: Send the "M51" and "F60" commands. Obtaining the adjustment values: Send the "GPW" command.
 - Shifting to Table 2: Send the "M51" and "F75" commands. Obtaining the adjustment values: Send the "GPW" command.
- ④ For each table, set the brightness.
 - Adjustment in Table 1: After sending the "F60" command, perform adjustment.
 - Adjustment in Table 2: After sending the "F75" command, perform adjustment.

For each table, change the RGB parameters so that the values measured using a Minolta color difference meter (CA-100) become as indicated below. In this case, any one of PRH, PGH, or PBH must be set to 256.

	Cd/mm	
x	285	"PRH****" : 000 - 511
y	289	"PGH****" : 000 - 511
		"PBH****" : 000 - 511

- ⑤ Check after adjustment
 - Shifting to Table 1: Send the "F60" command. Obtaining the adjustment values: Send the "GPW" command.
 - Shifting to Table 2: Send the "F75" command. Obtaining the adjustment values: Send the "GPW" command.

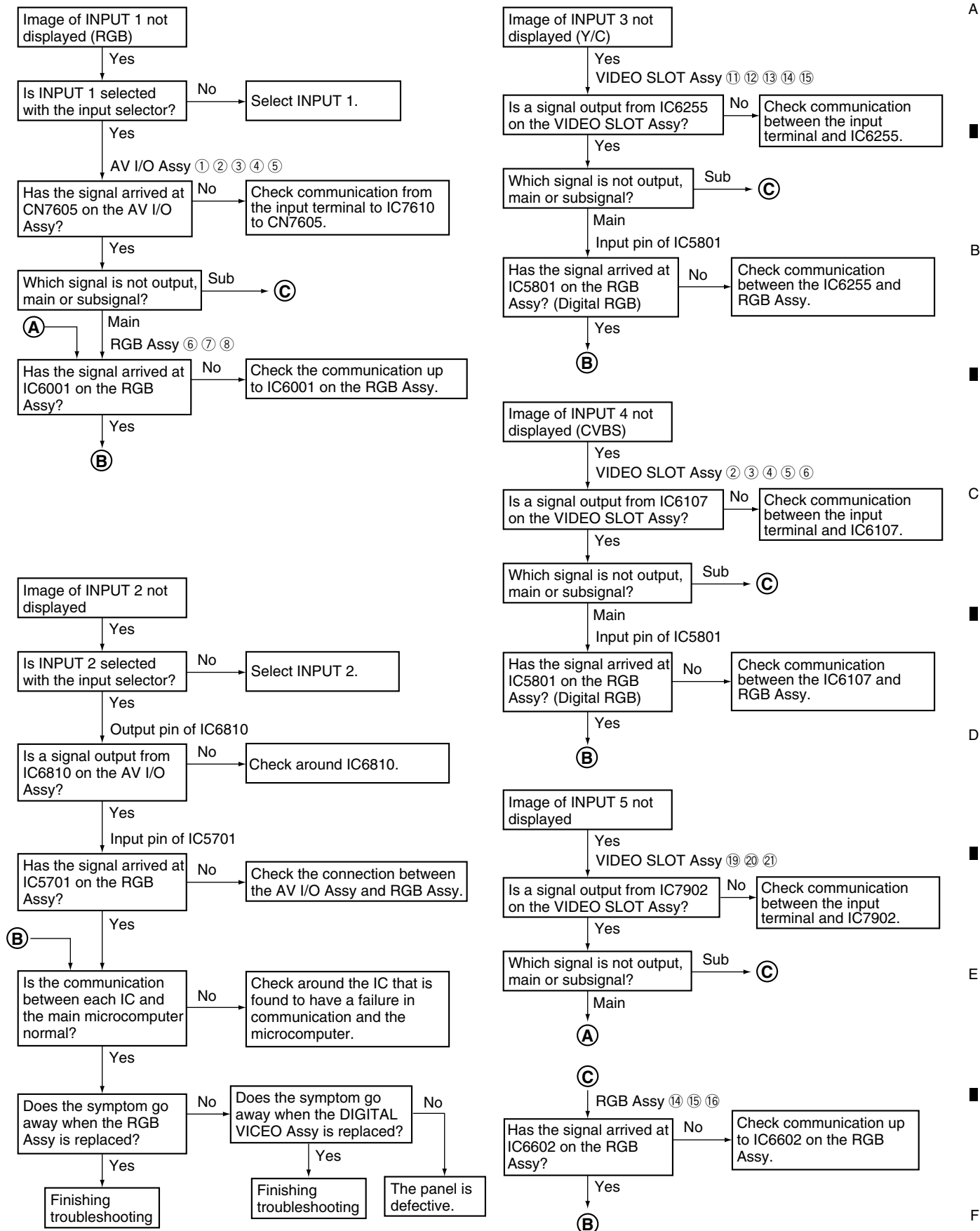
Check that the adjustment data have been changed.
- ⑥ Change the keyword for the DIGITAL VIDEO Assy to "adjusted" by sending the "FAJ" RS232C command.
Note: Use a Minolta CA-100 color difference meter or the equivalent for measurement. Otherwise, the specifications of the product cannot be assured.
- ⑦ Send the "FAN" RS232C command to enter Normal mode.
 - If the value is different from that you set, readjust it.

Note: To reset the adjustment to its original value, send the "BCP" RS232C command then turn the power off then back on to retrieve the backup data.

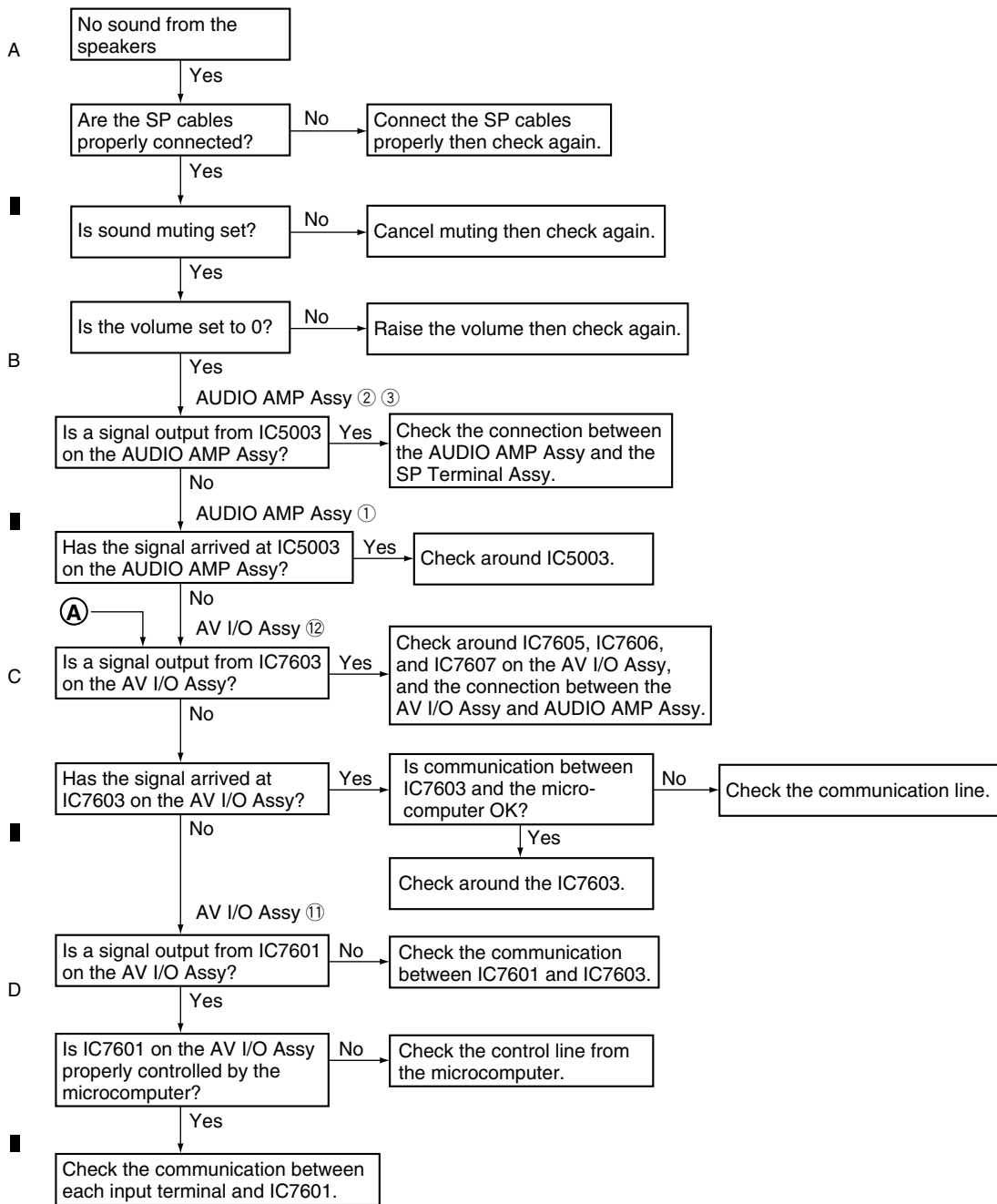
 - The setting values for color temperature differ between Factory mode and Normal mode. Therefore, the setting value for color-difference signals in Normal mode are different from those in Factory mode, even after the White Balance adjustment has been performed.

7.1.7 TROUBLESHOOTING

Video



Audio



7.1.8 CANCELING DETECTION BY THE TRAP SWITCH

• Canceling detection by the TRAP switch

Outline: For video data transmission from the HDMI input to the plasma display, digital signals are used. Therefore, this unit adopts the HDCP (High-bandwidth Digital Content Protection) system for copyright protection. This unit is also provided with a detection switch (TRAP switch) that will prohibit the unit from being turned on again if the rear case of the unit is opened, in order to prevent the panel technology from being leaked out.

Function: To deactivate the detection of the TRAP switch

Purposes: 1. During production of this unit, adjusting with the rear cover opened is possible.
2. During servicing or repairing, diagnoses of the assemblies are possible while the power is on.

Methods: For setting, use RS232C commands:

TSN: Ignore the monitoring of the switch

CTM: Clear the detection log of the switch

TSY: Reactivate monitoring of the switch

Notes:

- The TRAP switch is located on the chassis (see Fig. below).
- Once rear case opening is detected, send the TSN and CTM commands.
- Because the TSN command is not stored in memory, monitoring of the switch can be reactivated by turning the unit off then back on.
- The same setting is possible using the Factory menu.

● How to enter Factory mode using the remote control unit

Please refer to the technical documentation (Service knowhow).

● How to clear the detection log of the TRAP switch

In the INITIALIZE layer, hold the OSD key on the remote control unit pressed for at least 3 seconds.

● After a power-down, to cancel detection of the TRAP switch using only the remote control unit, follow the procedures below.

First, fix the TRAP switch to its depressed position. Set the drive ON/OFF switch in the DIGITAL VIDEO Assy to OFF, Then enter the Factory mode. Press the MUTE key five times, then hold the DISPLAY key pressed for at least 4 seconds. Set the AC switch on the panel to OFF. The log is also cleared. Then set the drive ON/OFF switch to ON.

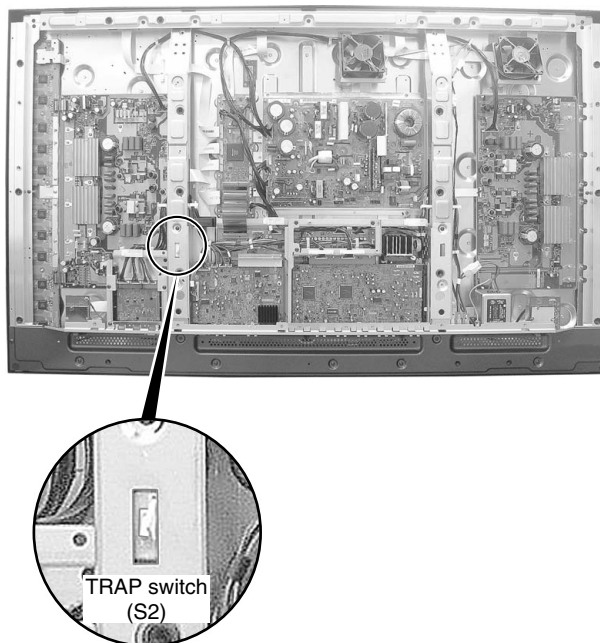


Fig. TRAP switch

7.1.9 DISASSEMBLY

• PDP-5004, PDP-5014 models

1 Rear Case, Front Case Assy

① Remove the grip by removing the four screws.

Note:

When reattaching the grip, be sure to securely tighten the screws.

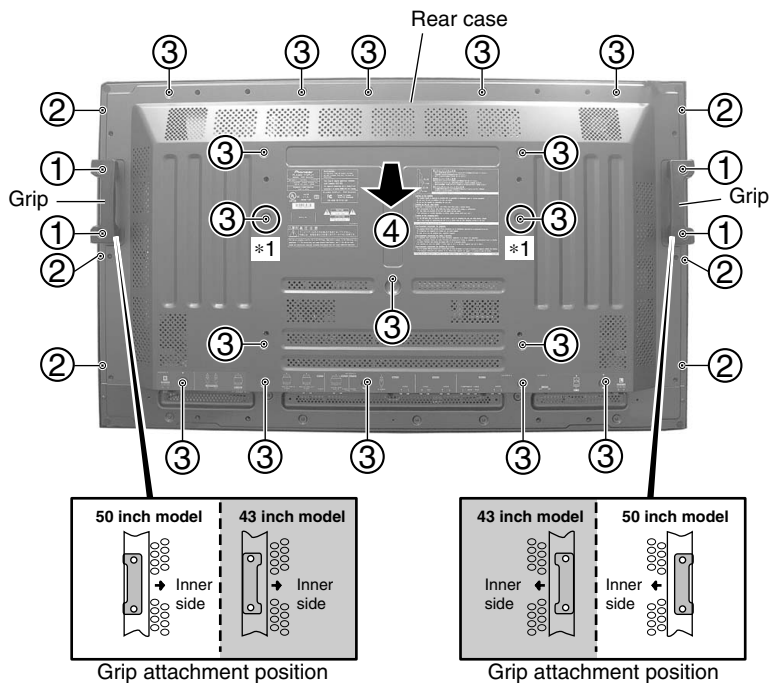
② Remove the six screws.

③ Remove the seventeen screws.

Note :

When reattaching the rear case, first attach the screws for the holes indicated with *1 to place the rear case in the correct position.

④ Remove the rear case.



⑤ Remove the three screws.

⑥ Remove the one rivet.

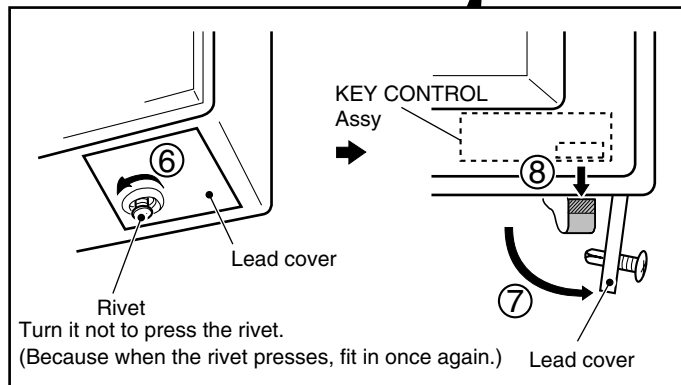
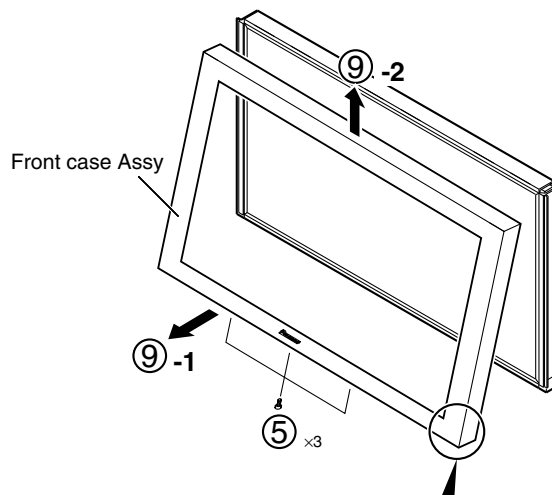
⑦ Remove the lead cover.

⑧ Disconnect the flexible cable.

⑨ Remove the front case Assy.

Note:

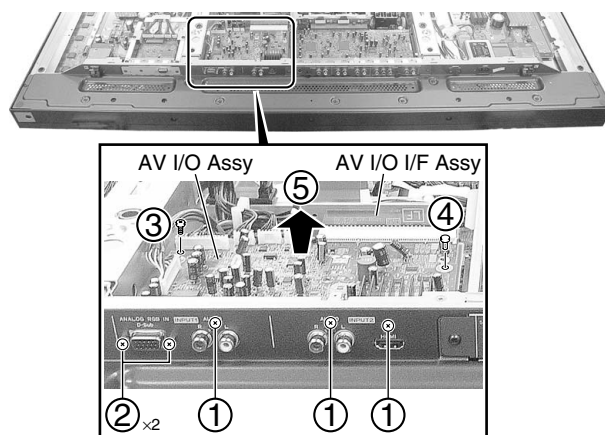
If only the front case Assy must be removed, without removing the rear case, perform the steps ⑤ to ⑨.



2 Multi Base Section

● Diagnosis of AV I/O Assy

- ① Remove the Three screws.
- ② Remove the two hexagon head screws.
- ③ Remove the one screw.
- ④ Remove the one pin grommet.
- ⑤ Remove the AV I/O Assy with the AV I/O I/F Assy.



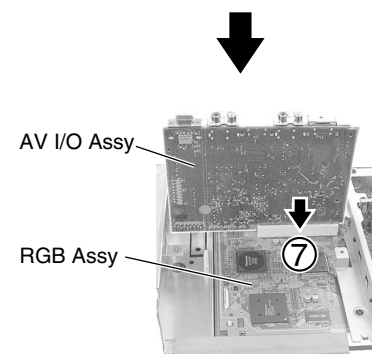
- ⑥ Remove the AV I/O Assy from the AV I/O I/F Assy.
- ⑦ Connect the AV I/O Assy to slot of the RGB Assy.

Diagnosis

Note:

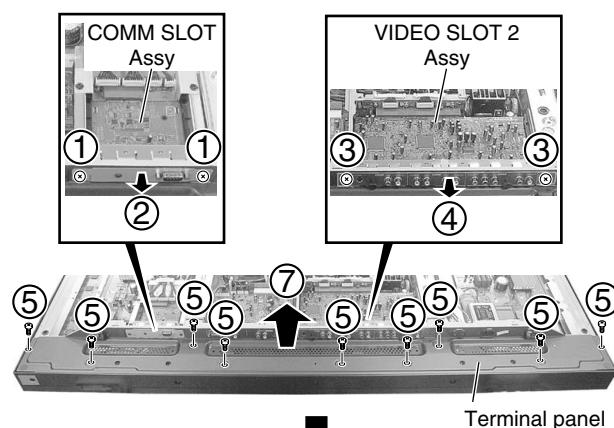
The cooling fan may rotate during diagnosis, in the following cases:

- When the rotation speed of the fan has been set to maximum for Integrator mode
- When the ambient temperature surrounding the temperature sensor is 35°C or higher



● Removing Multi Base Section

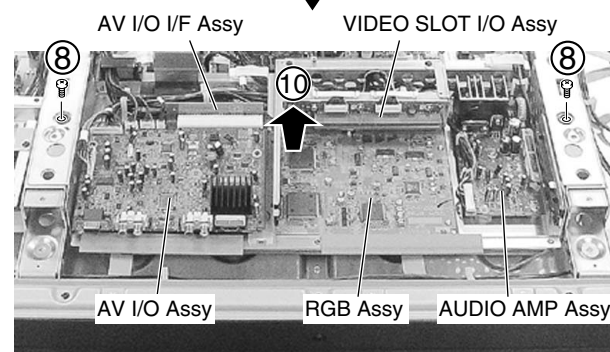
- ① Remove the two Torque screws.
- ② Remove the COMM SLOT Assy.
- ③ Remove the two Torque screws.
- ④ Remove the VIDEO SLOT 2 Assy.
- ⑤ Remove the nine screws.
- ⑥ Disconnect the some connectors at need.
- ⑦ Remove the terminal panel.



- ⑧ Remove the two screws.
- ⑨ Disconnect the some connectors at need.
- ⑩ Remove the multi base section.

Note:

Some tiny metal shavings may be released from the paring screw section when the VIDEO SLOT I/F Assy is detached from the sheet metal and is reattaching it to the RGB Assy.



3 X CONNECTOR A Assy, B Assy, 50 SCAN A Assy and B Assy

● X CONNECTOR A and B Assy

- ① Remove the enclosure sheet 1.

Note:

Enclosure sheet 1 is attached to comply with the safety standards. Make sure that it will not be shifted or peeled off. If it is peeled off, securely reattach it in its original place.

- ② Remove the jumper wire by removing the flat clamp.

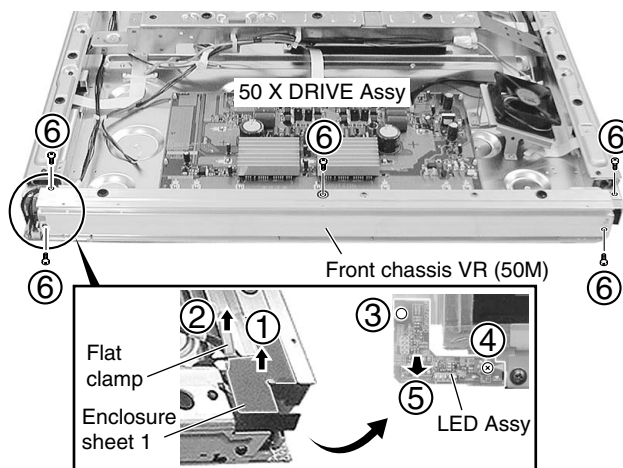
- ③ Remove the one nylon rivet.

- ④ Remove the one screw.

Note: Be sure to remove this screw. If you don't, the connector on the LED Assy may be damaged.

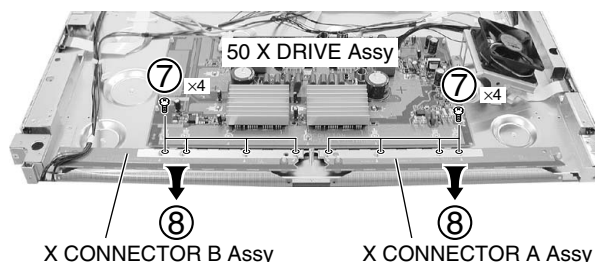
- ⑤ Remove the LED Assy.

- ⑥ Remove the front chassis VR (50M) by removing the five screws.



- ⑦ Remove the eight screws.

- ⑧ Remove the X CONNECTOR A and B Assy.



Note when reassembling the front chassis VR (50M)

Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

● 50 SCAN A and B Assy

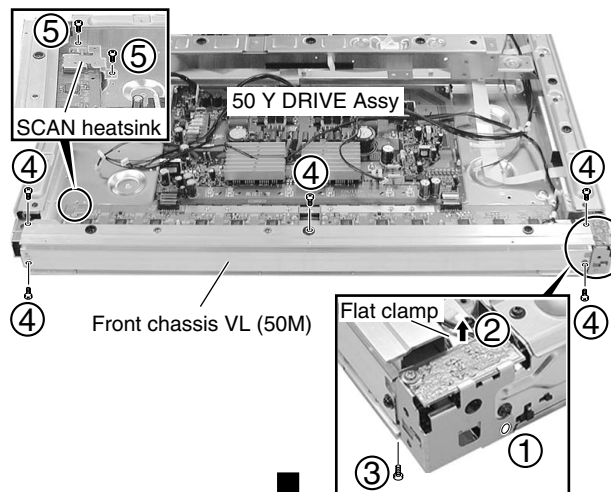
- ① Remove the one nylon rivet.

- ② Remove the jumper wire by removing the flat clamp.

- ③ Remove the one screw.

- ④ Remove the front chassis VL (50M) by removing the five screws.

- ⑤ Remove the SCAN heatsink by removing the two screws.

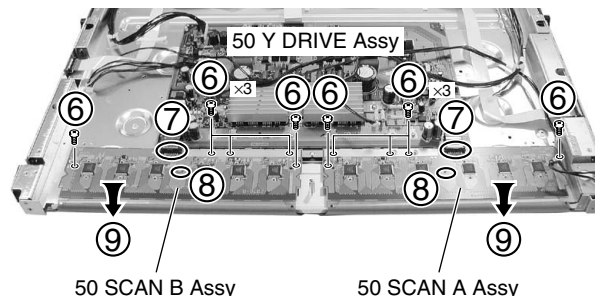


- ⑥ Remove the ten screws.

- ⑦ Disconnect the two pin connectors.

- ⑧ Remove the two spacers.

- ⑨ Remove the 50 SCAN A and B Assy.



Note when reassembling the front chassis VL (50M)

Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

1 Rear Case, Front Case Assy

① Remove the grip by removing the four screws.

Note:

When reattaching the grip, be sure to securely tighten the screws.

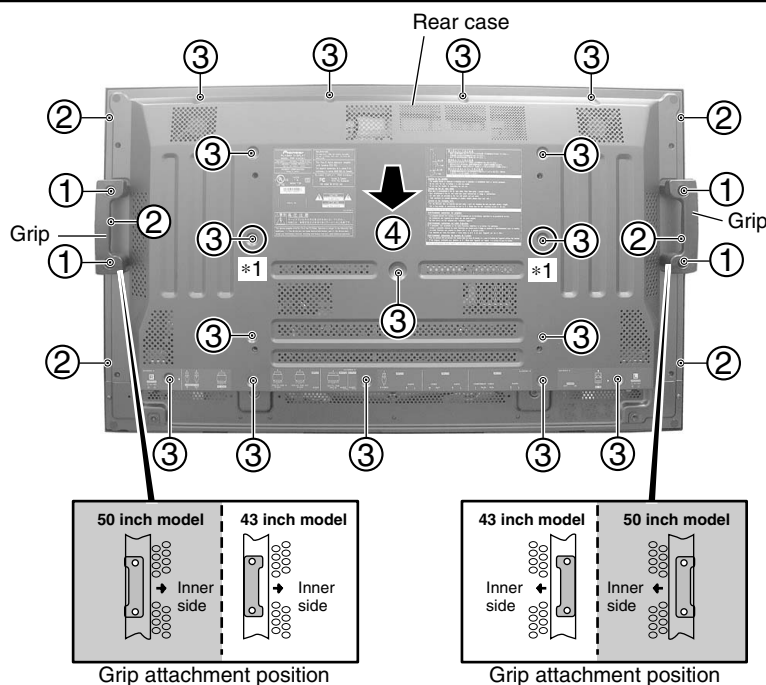
② Remove the six screws.

③ Remove the sixteen screws.

Note :

When reattaching the rear case, first attach the screws for the holes indicated with *1 to place the rear case in the correct position.

④ Remove the rear case.



⑤ Remove the three screws.

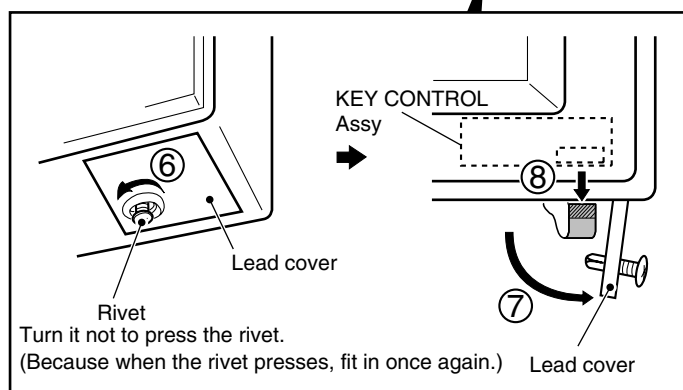
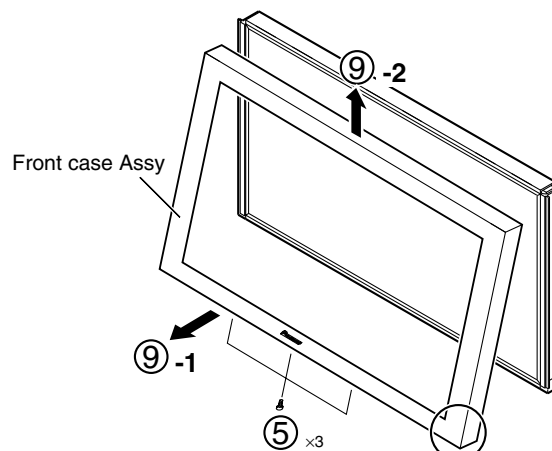
⑥ Remove the one rivet.

⑦ Remove the lead cover.

⑧ Disconnect the flexible cable.

⑨ Remove the front case Assy.

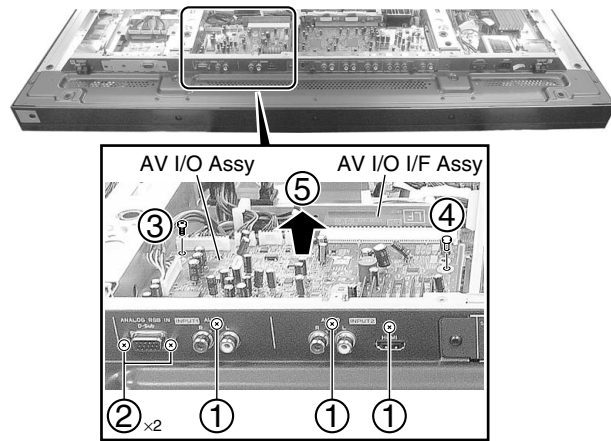
Note:
If only the front case Assy must be removed, without removing the rear case, perform the steps ⑤ to ⑨.



2 Multi Base Section

● Diagnosis of AV I/O Assy

- ① Remove the three screws.
- ② Remove the two hexagon head screws.
- ③ Remove the one screw.
- ④ Remove the one pin grommet.
- ⑤ Remove the AV I/O Assy with the AV I/O I/F Assy.



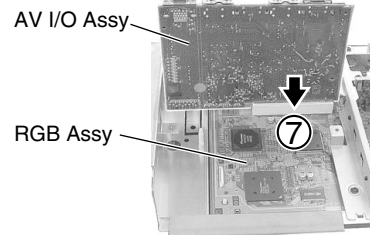
- ⑥ Remove the AV I/O Assy from the AV I/O I/F Assy.
- ⑦ Connect the AV I/O Assy to slot of the RGB Assy.



Diagnosis

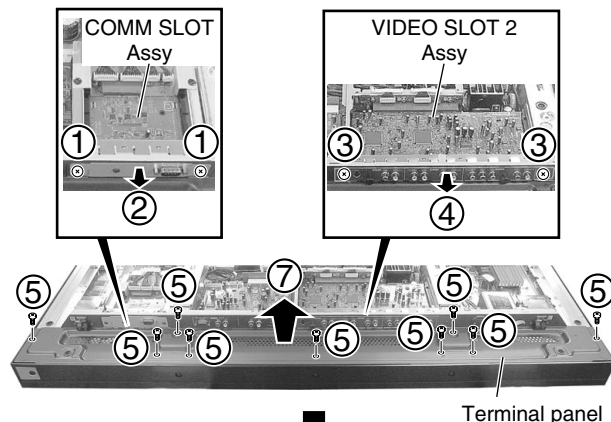
Note:

- The cooling fan may rotate during diagnosis, in the following cases:
- When the rotation speed of the fan has been set to maximum for Integrator mode
 - When the ambient temperature surrounding the temperature sensor is 35°C or higher

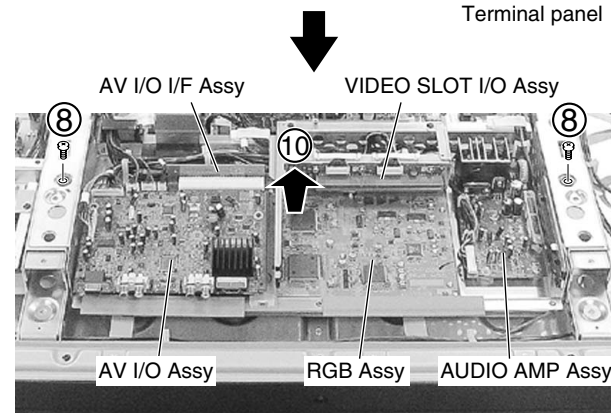


● Removing Multi Base Section

- ① Remove the two Torque screws.
- ② Remove the COMM SLOT Assy.
- ③ Remove the two Torque screws.
- ④ Remove the VIDEO SLOT 2 Assy.
- ⑤ Remove the nine screws.
- ⑥ Disconnect the some connectors at need.
- ⑦ Remove the terminal panel.



- ⑧ Remove the two screws.
- ⑨ Disconnect the some connectors at need.
- ⑩ Remove the multi base section.



Note:

- Some tiny metal shavings may be released from the paring screw section when the VIDEO SLOT I/F Assy is detached from the sheet metal and is reattached to it. Be sure to clear away any shavings or other foreign matter before reattaching it to the RGB Assy.

3 X CONNECTOR A Assy, B Assy, 43 SCAN A Assy and B Assy

● X CONNECTOR A and B Assy

- ① Remove the enclosure sheet 1.

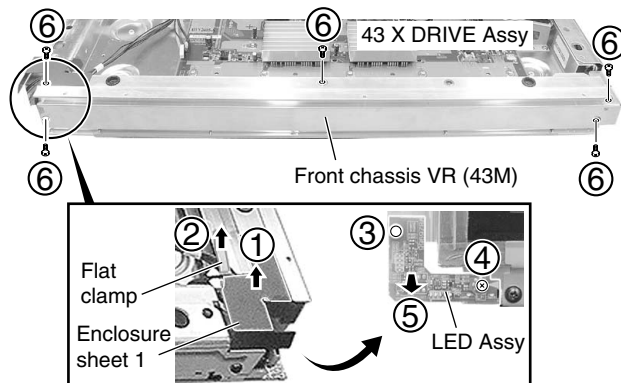
Note:

Enclosure sheet 1 is attached to comply with the safety standards. Make sure that it will not be shifted or peeled off. If it is peeled off, securely reattach it in its original place.

- ② Remove the jumper wire by removing the flat clamp.
- ③ Remove the one nylon rivet.
- ④ Remove the one screw.

Note: Be sure to remove this screw. If you don't, the connector on the LED Assy may be damaged.

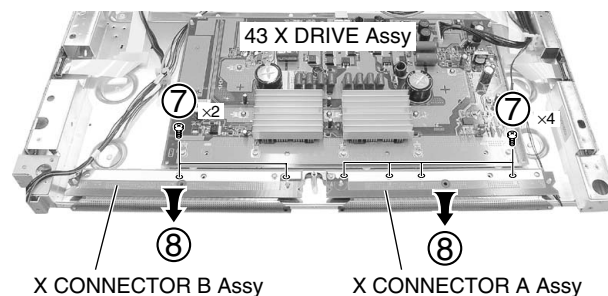
- ⑤ Remove the LED Assy.
- ⑥ Remove the front chassis VR (43M) by removing the five screws.



- ⑦ Remove the six screws.
- ⑧ Remove the X CONNECTOR A and B Assy.

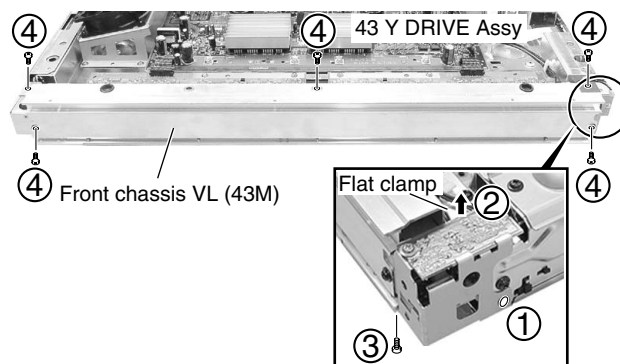
Note when reassembling the front chassis VR (43M)

Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.



● 43 SCAN A and B Assy

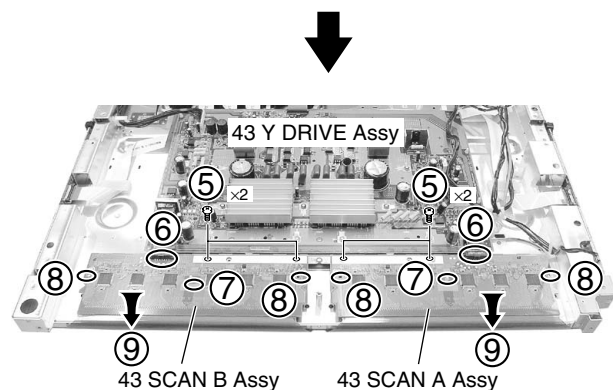
- ① Remove the one nylon rivet.
- ② Remove the jumper wire by removing the flat clamp.
- ③ Remove the one screw.
- ④ Remove the front chassis VL (43M) by removing the five screws.



- ⑤ Remove the four screws.
- ⑥ Disconnect the two pin connectors.
- ⑦ Remove the two spacers.
- ⑧ Remove the four spacers.
- ⑨ Remove the 43 SCAN A and B Assy.

Note when reassembling the front chassis VL (43M)

Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.



1 2 3 4

7.2 IC INFORMATION

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

A

• List of IC

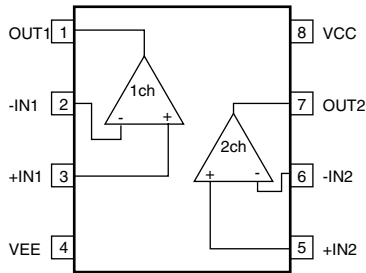
BA10393F, BA10358F, STK795-512, STK795-513, STK795-510, STK795-511, AN16003A, SN755864APZP, MBM29PL160BD-75PFTN, M30626FHPGP-P, PD5856A, AN5870SB, AD9883AKST-110, SM5301BS, BA7078AF, IC42S32200-7TG-K, MBM29PL3200BE70PFV, CXA3516R, SII9993CTG100, IC42S16100-7TG-K, LA4625

BA10393F (50 X DRIVE ASSY : IC1103), (43 X DRIVE ASSY : IC1103)
(50 Y DRIVE ASSY : IC2211), (43 Y DRIVE ASSY : IC2211)

• Comparator IC

B

• Pin Arrangement (Top View) / Block Diagram

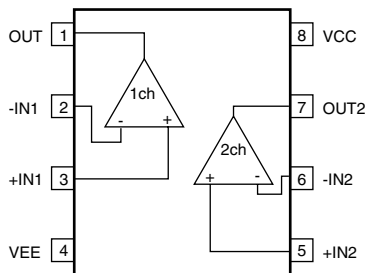


BA10358F (50 Y DRIVE ASSY : IC2406), (43 Y DRIVE ASSY : IC2406)

• Ope-Amp. IC

D

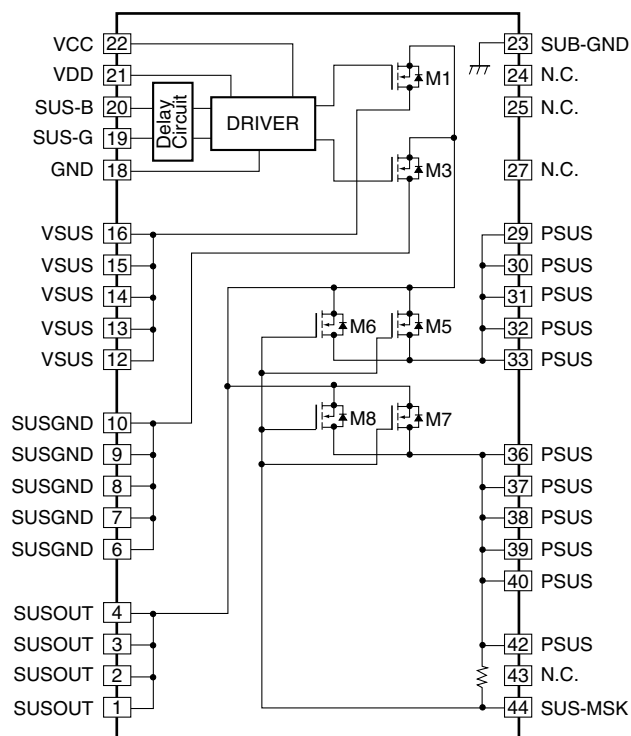
• Pin Arrangement (Top View) / Block Diagram



■ STK795-512 (50 X DRIVE ASSY : IC1203, IC1207)

• PDP Mask Module IC

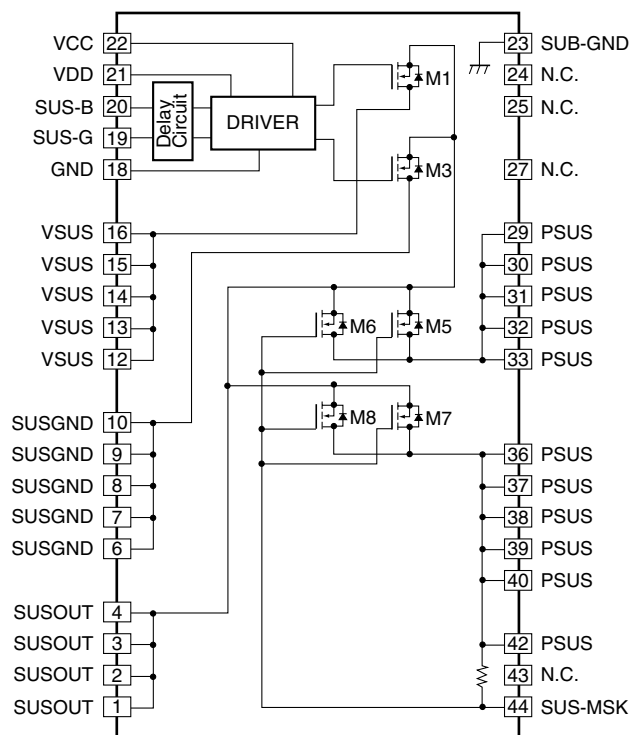
● Block Diagram



■ STK795-513 (50 Y DRIVE ASSY : IC2303, IC2307)

• PDP Mask Module IC

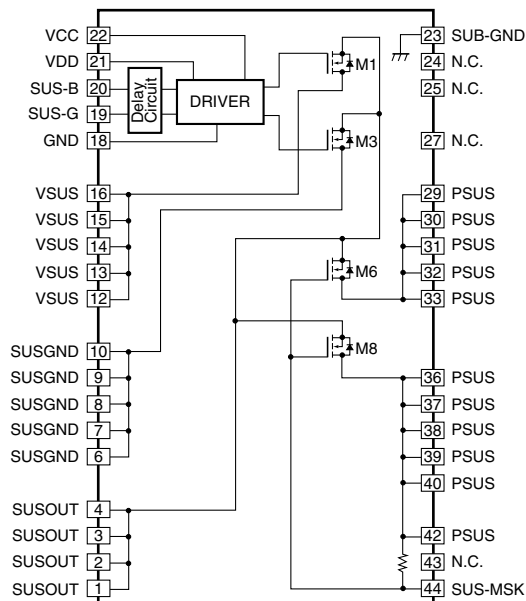
● Block Diagram



■ STK795-510 (43 X DRIVE ASSY: IC1203, IC1207)

• PDP Mask Module IC

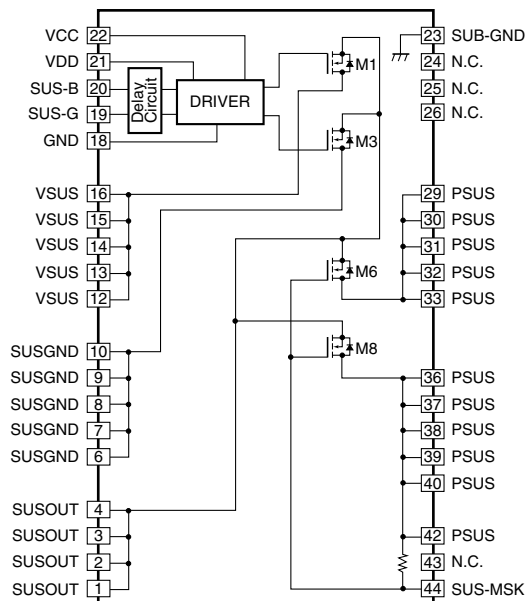
● Block Diagram



■ STK795-511 (43 Y DRIVE ASSY: IC2303, IC2307)

• PDP Mask Module IC

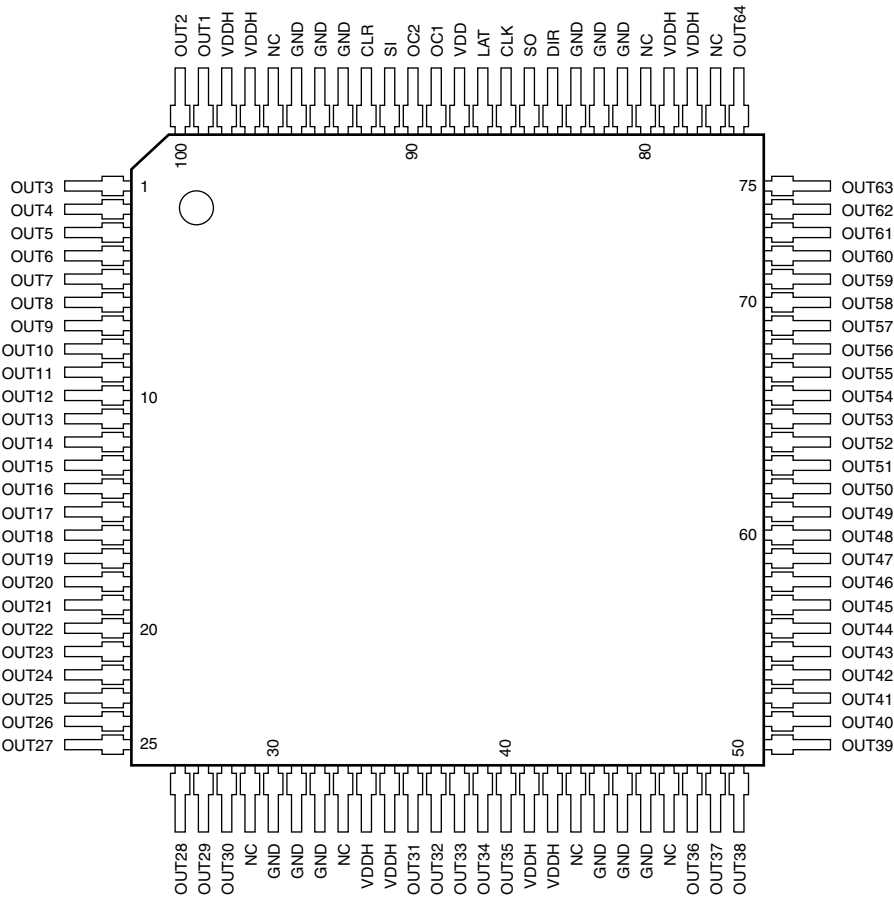
● Block Diagram



■ AN16003A (50 SCAN A ASSY : IC3001 - IC3006)
(50 SCAN B ASSY : IC3201 - IC3206)

• Plasma Display Panel IC

● Pin Arrangement (Top View)



● Pin Function

No.	Pin Name	Type	Function
1	OUT3	Output	High-voltage push-pull output pin
2	OUT4		
3	OUT5		
4	OUT6		
5	OUT7		
6	OUT8		
7	OUT9		
8	OUT10		
9	OUT11		
10	OUT12		

A

B

C

D

E

F

No.	Pin Name	Type	Function
11	OUT13	Output	High-voltage push-pull output pin
12	OUT14		
13	OUT15		
14	OUT16		
15	OUT17		
16	OUT18		
17	OUT19		
18	OUT20		
19	OUT21		
20	OUT22		
21	OUT23		
22	OUT24		
23	OUT25		
24	OUT26		
25	OUT27		
26	OUT28		
27	OUT29		
28	OUT30		
29	N.C	–	Not connected
30	GND	Ground	Ground pin
31	GND		
32	GND	–	Not connected
33	N.C		
34	VDDH	Supply	High-voltage circuit supply pin
35	VDDH		
36	OUT31	Output	High-voltage push-pull output pin
37	OUT32		
38	OUT33		
39	OUT34		
40	OUT35		
41	VDDH	Supply	High-voltage circuit supply pin
42	VDDH		
43	N.C	–	Not connected
44	GND	Ground	Ground pin
45	GND		
46	GND		
47	N.C	–	Not connected
48	OUT36	Output	High-voltage push-pull output pin
49	OUT37		
50	OUT38		
51	OUT39		
52	OUT40		
53	OUT41		
54	OUT42		
55	OUT43		
56	OUT44		
57	OUT45		
58	OUT46		
59	OUT47		
60	OUT48		

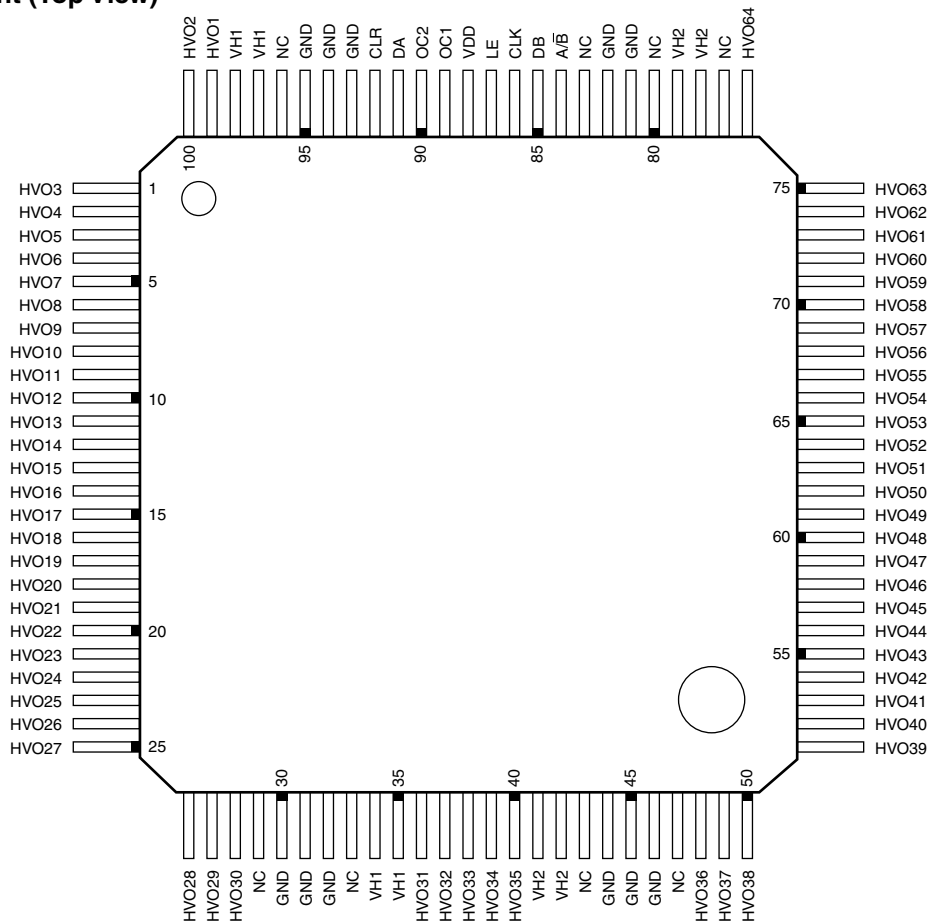
No.	Pin Name	Type	Function
61	OUT49	Output	High-voltage push-pull output pin
62	OUT50		
63	OUT51		
64	OUT52		
65	OUT53		
66	OUT54		
67	OUT55		
68	OUT56		
69	OUT57		
70	OUT58		
71	OUT59		
72	OUT60		
73	OUT61		
74	OUT62		
75	OUT63		
76	OUT64		
77	N.C	–	Not connected
78	VDDH	Supply	High-voltage circuit supply pin
79	VDDH		
80	N.C	–	Not connected
81	GND	Ground	Ground pin
82	GND		
83	GND		
84	DIR	Input	Setup pin of shift register shift direction L: Shift into reverse (SO → SI) H: Shift forward (SI → SO)
85	SO	Input / Output	Serial data input/output pin
86	CLK	Input	Serial clock input pin Fetch SI or SO data to shift register by CLK rise edge
87	LAT	Input	LAT data input pin L: Transfer shift register data to output latch H: Hold data to output latch
88	VDD	Supply	Logic supply pin
89	OC1	Input	Output control pin Control output according to the right truth value table
90	OC2		
91	SI	Input / Output	Serial data input/output pin
92	CLK	Input	All output reset pin CLK pin: L → Normal operation CLK pin: H → All output High
93	GND	Ground	Ground pin
94	GND		
95	GND		
96	N.C	–	Not connected
97	VDDH	Supply	High-voltage circuit supply pin
98	VDDH		
99	OUT1	Output	High-voltage push-pull output pin
100	OUT2		

OC1	OC1	OUT
L	L	ALL HIZ
L	H	DATA
H	L	ALL L
H	H	ALL H

SN755864APZP (43 SCAN A ASSY : IC3001 - IC3006) **(43 SCAN B ASSY : IC3201 - IC3206)**

• Plasma Display Panel IC

● Pin Arrangement (Top View)



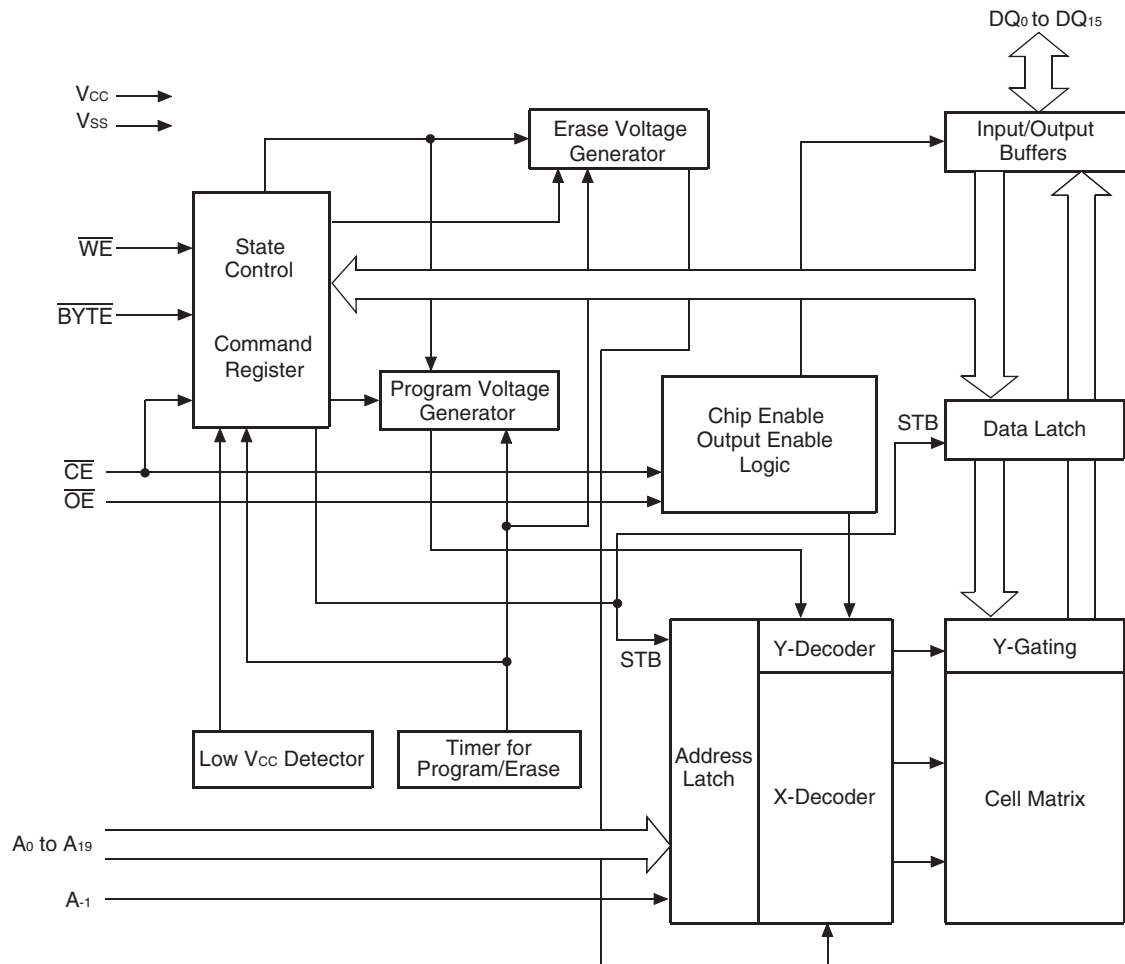
● Pin Function

Pin	Pin Name	I/O	Function
86	CLK	I	Shift clock (rising edge valid)
91	DA	I/O	Serial data input/output of shift register
85	DB	I/O	Serial data input/output of shift register
92	CLR	I	High-level clears data of shift register
87	LE	I	Low-level: through, High-level: latch
84	A/B	I	Shift direction control signal of shift register
89	OC1	I	HVO output control
90	OC2	I	HVO output control
1-28,36-40,48-76,99,100	HVO1-HVO64	O	High-voltage drive output (HVO1 to HVO64)
88	VDD	–	Logic supply
30-32,44-46,81,82,93-95	GND	–	GND for logic circuits Common to HVO1 to HVO64.
34,35,97,98	VH1	–	Common high voltage power supply for HVO1 to 32.
41,42,78,79	VH2	–	Common high voltage power supply for HVO33 to 64.
29,33,43,47,77,80,83,96	NC	–	Electrically isolated

■ MBM29L160BD-75PFTN (DIGITAL VIDEO ASSY : IC5305)

• Flash Memory IC

● Block Diagram



M30626FHPGP-P (DIGITAL VIDEO ASSY : IC5201)

• PDP μ COM

Pin Function

No.	Pin Name	Function	I/O	ACTIVE
1	VSUS	[D/A] Vofs power control	O	
2	VOFS	[D/A] Vofs power control	O	
3	TXD_IC4	3 serial communication with IC4MANTA - data transmission	O	
4	RXD_IC4	3 serial communication with IC4MANTA - data receive	I	
5	CLK_IC4	3 serial communication with IC4MANTA - clock output	O	
6	BYTE	(GND connection)	I	
7	CNVSS	Pin for processor mode setting (pull-down)	I	
8	NC	NC pin		
9	NC	NC pin		
10	RST_MD	Reset input	I	L
11	XOUT	Output for main clock	O	—
12	VSS	GND	—	—
13	XIN	Input for main clock	I	—
14	VCC1	Power supply = STB3.3V	—	—
15	NMI	(pull-up)	I	
16	REM_B	(Interruption) Remote control signal input (in the panel unit)	I	
17	KEY_B	(Interruption) Key signal input (in the panel unit)	I	
18	RST2	(Interruption) IC4 reset detection	I	L
19	HD_IN_B	HD signal existence distinction	I	L
20	PD_MUTE	Mute the power down output to the POWER SUPPLY Unit	O	L
21	PS_PD	PD signal in the POWER SUPPLY Unit	I	H
22	DCC_PD	PD signal of DC-DC converter	I	H
23	NC	NC pin		
24	NC	NC pin		
25	VD_IN	V. frequency count	I	L
26	EEPRST	EEPROM power SW	O	H
27	E_SCL	IIC clock output for EEPROM	O	
28	E_SDA	IIC data I/O for EEPROM	I/O	
29	TXD	Communication with flash ROM writer - data transmission	O	
30	RXD	Communication with flash ROM writer - data receive	I	
31	SCLK	Communication with flash ROM writer - clock input	I	
32	BUSY	Communication with flash ROM writer - busy output	O	
33	TXD0	UART communication with main UCOM (external PC) - data transmission	O	
34	RXD0	UART communication with main UCOM (external PC) - data receive	I	
35	NC	NC pin		
36	REQ_MD	Communication request to the main UCOM	O	H
37	PSW_D	Mute of DC-DC converter	O	H
38	WE_IC4	In IC4 (MANTA) rewriting, control for communication path switch	O	H
39	EPM	Setting pin for flash rewriting mode (pull-down)	I	
40	IC4_RST	IC4 forced reset	O	L
41	IC4_CE	Enable for IC4 communication	O	L
42	IC4_BUSY	Busy input for IC4 communication	I	H
43	REQ_IC4	Communication request from the IC4	I	H
44	CE	Setting pin for flash rewriting mode (pull-up)	I	
45	PSIZE	Panel size distinction	I	
46	B_SCL	IIC clock output for backup EEPROM	O	H
47	B_SDA	IIC DATA I/O for backup EEPROM	I/O	H
48	ADR_PD	PD signal of address junction	I	H
49	LED_G	Green LED control	O	L
50	LED_R	Red LED control	O	L

No.	Pin Name	Function	I/O	ACTIVE
51	DRV_OFF	Driving OFF	O	H
52	RELAY	Power ON control output	O	H
53	POWER	Power ON control input	I	H
54	MR_ST_B	MDR connection detection	I	L
55	OP_DET	Rear case open detection	I	
56	NC	NC pin		
57	PNL_MUTE	Panel mute	I	
58	DITHER	PC/VIDEO dither switch (panel module exclusive use)	I	
59	NC	NC pin		
60	VCC2	Power supply = STB 3.3V	—	—
61	PD_TRG	PD detection	I	L
62	VSS	GND	—	—
63	VH_PD	Vh power decrease PD	I	H
64	YDRV_PD	Y drive PD signal	I	H
65	YRES_PD	Y drive PD signal	I	H
66	YDCDC_PD	PD signal of Y drive DC-DC converter	I	H
67	IC5V_PD	5V power decrease PD	I	H
68	XSUS_PD	X drive PD signal	I	H
69	XDCDC_PD	PD signal of X drive DC-DC converter	I	H
70	XDRV_PD	X drive PD signal	I	H
71	NC	NC pin		
72	MR_AC	MR power monitor	I	H
73	AC_DET	AC power monitor at panel side (same signal as CST1)	I	L
74	DVI_MUTE	Mute of panel link output	O	H
75	A_MUTE	Audio mute	O	H
76	A_NG	Audio NG detection	I	L
77	A_SCL	IIC clock output for audio/others	O	L
78	A_SDA	IIC data I/O for audio/others	I/O	L
79	TRUBASS	TRUBASS ON/OFF	O	H
80	STB_SW	Standby setting of audio amp.	O	L
81	FOCUS	FOCUS ON/OFF	O	H
82	SRS	SRS ON/OFF	O	H
83	DDC_WP	DDCROM write protection	O	H
84	DVI_DET	DVI cable disconnection detection	I	H
85	RSTBTMDS	Reset detection of panel link receiver	I	L
86	L_SYNC	DE omission detection of the panel link	I	L
87	NC	NC pin		
88	NC	NC pin		
89	MASK1	[A/D] Mask display setting	I	
90	MAX_PLS2	[A/D] Brightness setting for panel module	I	
91	MAX_PLS1	[A/D] Brightness setting for panel module	I	
92	TEMP	[A/D] AD input for temperature sensor	I	
93	MODE	[A/D] Operation mode setting	I	
94	AVSS	GND for A/D input	—	—
95	MODEL	[A/D] CMX/HD/TV/WX distinction	I	
96	VREF	Reference voltage for A/D input	—	—
97	AVCC	Power supply for A/D input = STB3.3V	—	—
98	NC	NC pin		
99	NC	NC pin		
100	AMG_MD	Address emergency monitor	I	H

■ PD5856A (DIGITAL VIDEO ASSY : IC5401)

• PDP ASIC IC4

● Pin Function

Ball No.	No.	Pin Name	Function
A1	1	BAI_6	A phase signal input of B video (sixth bit)
B1	2	BAI_5	A phase signal input of B video (fifth bit)
C1	3	BAI_4	A phase signal input of B video (fourth bit)
D1	4	NC	NC pin
E1	5	NC	NC pin
F1	6	BAI_3	A phase signal input of B video (fifth bit)
G1	7	BAI_2	A phase signal input of B video (fourth bit)
H1	8	FIELD	FIELD signal input
J1	9	XSUSB_12	X-Drive control signal output
K1	10	XSUSB_10	X-Drive control signal output
L1	11	XSUSB_4	X-Drive control signal output
M1	12	XSUSB_0	X-Drive control signal output
N1	13	XSUSA_10	X-Drive control signal output
P1	14	XSUSA_4	X-Drive control signal output
R1	15	XSUSA_2	X-Drive control signal output
T1	16	ADRS_0	Address control signal output
U1	17	AD6TXOUT3M	Address LVDS signal output
V1	18	AD6TXCLKOUTM	Address LVDS signal output
W1	19	AD6TXOUT2M	Address LVDS signal output
Y1	20	AD6TXOUT1M	Address LVDS signal output
AA1	21	AD6TXOUT0M	Address LVDS signal output
AB1	22	AD7TXOUT3M	Address LVDS signal output
AC1	23	AD7TXCLKOUTM	Address LVDS signal output
AD1	24	AD7TXOUT2M	Address LVDS signal output
AE1	25	AD7TXOUT1M	Address LVDS signal output
AF1	26	AD7TXOUT0M	Address LVDS signal output
AF2	27	AD7TXOUT0P	Address LVDS signal output
AF3	28	VSSLA	GND
AF4	29	AD3TXOUT3M	Address LVDS signal output
AF5	30	AD3TXCLKOUTM	Address LVDS signal output
AF6	31	AD3TXOUT2M	Address LVDS signal output
AF7	32	AD3TXOUT1M	Address LVDS signal output
AF8	33	AD3TXOUT0M	Address LVDS signal output
AF9	34	AD2TXOUT3M	Address LVDS signal output
AF10	35	AD2TXCLKOUTM	Address LVDS signal output
AF11	36	AD2TXOUT2M	Address LVDS signal output
AF12	37	AD2TXOUT1M	Address LVDS signal output
AF13	38	AD2TXOUT0M	Address LVDS signal output
AF14	39	AD1TXOUT3M	Address LVDS signal output
AF15	40	AD1TXCLKOUTM	Address LVDS signal output
AF16	41	AD1TXOUT2M	Address LVDS signal output
AF17	42	AD1TXOUT1M	Address LVDS signal output
AF18	43	AD1TXOUT0M	Address LVDS signal output
AF19	44	AD0TXOUT3M	Address LVDS signal output
AF20	45	AD0TXCLKOUTM	Address LVDS signal output
AF21	46	AD0TXOUT2M	Address LVDS signal output
AF22	47	AD0TXOUT1M	Address LVDS signal output
AF23	48	AD0TXOUT0M	Address LVDS signal output
AF24	49	VSSL15	GND
AF25	50	AD4TXOUT3P	Address LVDS signal output

Ball No.	No.	Pin Name	Function
AF26	51	AD4TXOUT3M	Address LVDS signal output
AE26	52	AD4TXCLKOUTM	Address LVDS signal output
AD26	53	AD4TXOUT2M	Address LVDS signal output
AC26	54	AD4TXOUT1M	Address LVDS signal output
AB26	55	AD4TXOUT0M	Address LVDS signal output
AA26	56	AD5TXOUT3M	Address LVDS signal output
Y26	57	AD5TXCLKOUTM	Address LVDS signal output
W26	58	AD5TXOUT2M	Address LVDS signal output
V26	59	AD5TXOUT1M	Address LVDS signal output
U26	60	AD5TXOUT0M	Address LVDS signal output
T26	61	SDIDBI_N	JTAG signal
R26	62	SDIJTAG	JTAG signal
P26	63	GPIO0_3	Microcomputer macro general-purpose port
N26	64	GPIO0_1	Microcomputer macro general-purpose port
M26	65	YSUSA_4	Y-Drive control signal output
L26	66	YSUSA_10	Y-Drive control signal output
K26	67	YSUSA_14	Y-Drive control signal output
J26	68	YSUSB_4	Y-Drive control signal output
H26	69	YSUSB_6	Y-Drive control signal output
G26	70	YSUSB_10	Y-Drive control signal output
F26	71	YSUSB_14	Y-Drive control signal output
E26	72	NC	NC pin
D26	73	NC	NC pin
C26	74	SCAN_10	Scan control signal output
B26	75	CSIoTXD	Communication with microcomputer
A26	76	CSRDI_N	Communication with microcomputer
A25	77	CSCS_N0	Communication with microcomputer
A24	78	EXA16	Flash memory address bus
A23	79	EXA15	Flash memory address bus
A22	80	EXA14	Flash memory address bus
A21	81	EXA13	Flash memory address bus
A20	82	EXA12	Flash memory address bus
A19	83	EXA10	Flash memory address bus
A18	84	EXA7	Flash memory address bus
A17	85	EXA1	Flash memory address bus
A16	86	EXDIO_3	Flash memory data bus
A15	87	EXDIO_5	Flash memory data bus
A14	88	EXDIO_11	Flash memory data bus
A13	89	TRNSEND_O	NC pin
A12	90	RBI_5	B phase signal input of R video (fifth bit)
A11	91	RBI_0	B phase signal input of R video (0 bit)
A10	92	GBI_8	B phase signal input of G video (eighth bit)
A9	93	GBI_2	B phase signal input of G video (second bit)
A8	94	BBI_6	B phase signal input of B video (sixth bit)
A7	95	BBI_0	B phase signal input of B video (0 bit)
A6	96	VDI	VD signal input
A5	97	RAI_5	A phase signal input of R video (fifth bit)
A4	98	DCLKI	CLK input
A3	99	GAI_4	A phase signal input of G video (fourth bit)
A2	100	BAI_9	A phase signal input of B video (ninth bit)

A

B

C

D

E

F

Ball No.	No.	Pin Name	Function
B2	101	BAI_8	A phase signal input of B video (eighth bit)
C2	102	BAI_7	A phase signal input of B video (seventh bit)
D2	103	GND	GND
E2	104	NC	NC
F2	105	NC	NC
G2	106	BAI_1	A phase signal input of B video (first bit)
H2	107	XSUSB_15	X-Drive control signal output
J2	108	GND	GND
K2	109	XSUSB_9	X-Drive control signal output
L2	110	XSUSB_3	X-Drive control signal output
M2	111	XSUSA_15	X-Drive control signal output
N2	112	XSUSA_9	X-Drive control signal output
P2	113	GND	GND
R2	114	XSUSA_1	X-Drive control signal output
T2	115	TEST2	Test signal input (Not used)
U2	116	AD6TXOUT3P	Address LVDS signal output
V2	117	AD6TXCLKOUTP	Address LVDS signal output
W2	118	AD6TXOUT2P	Address LVDS signal output
Y2	119	AD6TXOUT1P	Address LVDS signal output
AA2	120	AD6TXOUT0P	Address LVDS signal output
AB2	121	AD7TXOUT3P	Address LVDS signal output
AC2	122	AD7TXCLKOUTP	Address LVDS signal output
AD2	123	AD7TXOUT2P	Address LVDS signal output
AE2	124	AD7TXOUT1P	Address LVDS signal output
AE3	125	VSSLA	GND
AE4	126	AD3TXOUT3P	Address LVDS signal output
AE5	127	AD3TXCLKOUTP	Address LVDS signal output
AE6	128	AD3TXOUT2P	Address LVDS signal output
AE7	129	AD3TXOUT1P	Address LVDS signal output
AE8	130	AD3TXOUT0P	Address LVDS signal output
AE9	131	AD2TXOUT3P	Address LVDS signal output
AE10	132	AD2TXCLKOUTP	Address LVDS signal output
AE11	133	AD2TXOUT2P	Address LVDS signal output
AE12	134	AD2TXOUT1P	Address LVDS signal output
AE13	135	AD2TXOUT0P	Address LVDS signal output
AE14	136	AD1TXOUT3P	Address LVDS signal output
AE15	137	AD1TXCLKOUTP	Address LVDS signal output
AE16	138	AD1TXOUT2P	Address LVDS signal output
AE17	139	AD1TXOUT1P	Address LVDS signal output
AE18	140	AD1TXOUT0P	Address LVDS signal output
AE19	141	AD0TXOUT3P	Address LVDS signal output
AE20	142	AD0TXCLKOUTP	Address LVDS signal output
AE21	143	AD0TXOUT2P	Address LVDS signal output
AE22	144	AD0TXOUT1P	Address LVDS signal output
AE23	145	AD0TXOUT0P	Address LVDS signal output
AE24	146	VSSL15	GND
AE25	147	AD4TXCLKOUTP	Address LVDS signal output
AD25	148	AD4TXOUT2P	Address LVDS signal output
AC25	149	AD4TXOUT1P	Address LVDS signal output
AB25	150	AD4TXOUT0P	Address LVDS signal output

Ball No.	No.	Pin Name	Function
AA25	151	AD5TXOUT3P	Address LVDS signal output
Y25	152	AD5TXCLKOUTP	Address LVDS signal output
W25	153	AD5TXOUT2P	Address LVDS signal output
V25	154	AD5TXOUT1P	Address LVDS signal output
U25	155	AD5TXOUT0P	Address LVDS signal output
T25	156	SDITRST_N	JTAG signal
R25	157	RESETX	Reset input
P25	158	GND	GND
N25	159	GPIO0_0	Microcomputer macro general-purpose port
M25	160	YSUSA_5	Y-Drive control signal output
L25	161	YSUSA_11	Y-Drive control signal output
K25	162	YSUSA_15	Y-Drive control signal output
J25	163	GND	GND
H25	164	YSUSB_7	Y-Drive control signal output
G25	165	YSUSB_11	Y-Drive control signal output
F25	166	NC	NC pin
E25	167	NC	NC pin
D25	168	GND	GND
C25	169	SCAN_11	Scan control signal output
B25	170	CSIORXD	Communication with UCOM
B24	171	CSIOSCKI	Communication with UCOM
B23	172	UARTTXD	Communication with UCOM
B22	173	UARTRXD	Communication with UCOM
B21	174	CSWR_N0	Communication with UCOM
B20	175	GND	GND
B19	176	EXA9	Flash memory address bus
B18	177	EXA6	Flash memory address bus
B17	178	EXA0	Flash memory address bus
B16	179	GND	GND
B15	180	EXDIO_6	Flash memory data bus
B14	181	EXDIO_12	Flash memory data bus
B13	182	RBI_9	B phase signal input of R video (ninth bit)
B12	183	RBI_4	B phase signal input of R video (fourth bit)
B11	184	GND	GND
B10	185	GBI_7	B phase signal input of G video (seventh bit)
B9	186	GBI_1	B phase signal input of G video (first bit)
B8	187	BBI_5	B phase signal input of B video (fifth bit)
B7	188	GND	GND
B6	189	HDI	HD signal input
B5	190	RAI_4	A phase signal input of R video (fourth bit)
B4	191	GAI_9	A phase signal input of G video (ninth bit)
B3	192	GAI_3	A phase signal input of G video (third bit)
C3	193	GAI_2	A phase signal input of G video (second bit)
D3	194	VDDD33	3.3V power supply
E3	195	GAI_1	A phase signal input of G video (first bit)
F3	196	GAI_0	A phase signal input of G video (0 bit)
G3	197	NC	NC pin
H3	198	XSUSB_14	X-Drive control signal output
J3	199	VDDIO	3.3V power supply
K3	200	XSUSB_8	X-Drive control signal output

A

Ball No.	No.	Pin Name	Function
L3	201	XSUSB_2	X-Drive control signal output
M3	202	XSUSA_14	X-Drive control signal output
N3	203	XSUSA_8	X-Drive control signal output
P3	204	VDDIO	3.3V power supply
R3	205	XSUSA_0	X-Drive control signal output
T3	206	TEST1	Test signal input (Not used)
U3	207	VSSLA	GND
V3	208	VSSLA	GND
W3	209	VSSLA	GND
Y3	210	VSSLA	GND
AA3	211	VSSLA	GND
AB3	212	VSSLA	GND
AC3	213	VSSLA	GND
AD3	214	VSSLA	GND
AD4	215	VSSLA	GND
AD5	216	VSSLA	GND
AD6	217	VSSLA	GND
AD7	218	VSSLA	GND
AD8	219	VSSLA	GND
AD9	220	VSSLA	GND
AD10	221	VSSLA	GND
AD11	222	VSSLA	GND
AD12	223	VSSLA	GND
AD13	224	VSSLA	GND
AD14	225	VSSLA	GND
AD15	226	VSSLA	GND
AD16	227	VSSLA	GND
AD17	228	VSSLA	GND
AD18	229	VSSLA	GND
AD19	230	VSSLA	GND
AD20	231	VSSLA	GND
AD21	232	VSSLA	GND
AD22	233	VSSLA	GND
AD23	234	VSSLA	GND
AD24	235	VSSLA	GND
AC24	236	VSSLA	GND
AB24	237	VSSLA	GND
AA24	238	VSSLA	GND
Y24	239	VSSLA	GND
W24	240	VSSLA	GND
V24	241	VSSLA	GND
U24	242	VSSLA	GND
T24	243	SDITDO	JTAG signal
R24	244	GPIO0_7	Microcomputer macro general-purpose port
P24	245	VDDIO	3.3V power supply
N24	246	YSUSA_0	Y-Drive control signal output
M24	247	YSUSA_6	Y-Drive control signal output
L24	248	YSUSA_12	Y-Drive control signal output
K24	249	YSUSB_0	Y-Drive control signal output
J24	250	VDDD33	3.3V power supply

F

Ball No.	No.	Pin Name	Function
H24	251	YSUSB_8	Y-Drive control signal output
G24	252	NC	NC pin
F24	253	YSUSB_15	Y-Drive control signal output
E24	254	SCAN_3	Scan control signal output
D24	255	VDDD33	3.3V power supply
C24	256	SCAN_12	Scan control signal output
C23	257	SCAN_13	Scan control signal output
C22	258	SCAN_14	Scan control signal output
C21	259	SCAN_15	Scan control signal output
C20	260	VDDIO	3.3V power supply
C19	261	EXA8	Flash memory address bus
C18	262	EXA5	Flash memory address bus
C17	263	CLKD	CLK input (60MHz)
C16	264	VDDIO	3.3V power supply
C15	265	EXDIO_7	Flash memory data bus
C14	266	EXDIO_13	Flash memory data bus
C13	267	RBI_8	B phase signal input of R video (eighth bit)
C12	268	RBI_3	B phase signal input of R video (third bit)
C11	269	VDDIO	3.3V power supply
C10	270	GBI_6	B phase signal input of G video (sixth bit)
C9	271	GBI_0	B phase signal input of G video (0 bit)
C8	272	BBI_4	B phase signal input of B video (fourth bit)
C7	273	VDDIO	3.3V power supply
C6	274	RAI_9	A phase signal input of R video (ninth bit)
C5	275	RAI_3	A phase signal input of R video (third bit)
C4	276	GAI_8	A phase signal input of G video (eighth bit)
D4	277	GAI_7	A phase signal input of G video (seventh bit)
E4	278	GAI_6	A phase signal input of G video (sixth bit)
F4	279	GAI_5	A phase signal input of G video (fifth bit)
G4	280	VCMP	GND
H4	281	XSUSB_13	X-Drive control signal output
J4	282	XSUSB_11	X-Drive control signal output
K4	283	XSUSB_7	X-Drive control signal output
L4	284	XSUSB_1	X-Drive control signal output
M4	285	XSUSA_13	X-Drive control signal output
N4	286	XSUSA_7	X-Drive control signal output
P4	287	XSUSA_3	X-Drive control signal output
R4	288	ADRS_3	Address control signal output
T4	289	TESTAN	Test signal input (Not used)
U4	290	VDDLA	3.3V power supply
V4	291	VDDLA	3.3V power supply
W4	292	VDDLA	3.3V power supply
Y4	293	VDDLA	3.3V power supply
AA4	294	VDDLA	3.3V power supply
AB4	295	VDDLA	3.3V power supply
AC4	296	VDDLA	3.3V power supply
AC5	297	VDDLA	3.3V power supply
AC6	298	VDDLA	3.3V power supply
AC7	299	VDDLA	3.3V power supply
AC8	300	VDDLA	3.3V power supply

A

Ball No.	No.	Pin Name	Function
AC8	300	VDDLA	3.3V power supply
AC9	301	VDDLA	3.3V power supply
AC10	302	VDDLA	3.3V power supply
AC11	303	VDDLA	3.3V power supply
AC12	304	VDDLA	3.3V power supply
AC13	305	VDDLA	3.3V power supply
AC14	306	VDDBG	3.3V power supply
AC15	307	VDDLA	3.3V power supply
AC16	308	VDDLA	3.3V power supply
AC17	309	VDDLA	3.3V power supply
AC18	310	VDDLA	3.3V power supply
AC19	311	VDDLA	3.3V power supply
AC20	312	VDDLA	3.3V power supply
AC21	313	VDDLA	3.3V power supply
AC22	314	VDDLA	3.3V power supply
AC23	315	VDDLA	3.3V power supply
AB23	316	VDDLA	3.3V power supplyv
AA23	317	VDDLA	3.3V power supply
Y23	318	VDDLA	3.3V power supply
W23	319	VDDLA	3.3V power supply
V23	320	VDDLA	3.3V power supply
U23	321	VDDLA	3.3V power supply
T23	322	SDITDI	JTAG signal
R23	323	GPIO0_6	Microcomputer macro general-purpose port
P23	324	GPIO0_2	Microcomputer macro general-purpose port
N23	325	YSUSA_1	Y-Drive control signal output
M23	326	YSUSA_7	Y-Drive control signal output
L23	327	YSUSA_13	Y-Drive control signal output
K23	328	YSUSB_1	Y-Drive control signal output
J23	329	YSUSB_5	Y-Drive control signal output
H23	330	YSUSB_9	Y-Drive control signal output
G23	331	VCMP	GND
F23	332	SCAN_0	Scan control signal output
E23	333	SCAN_4	Scan control signal output
D23	334	SCAN_7	Scan control signal output
D22	335	SCAN_8	Scan control signal output
D21	336	SCAN_9	Scan control signal output
D20	337	EXA11	Flash memory address bus
D19	338	EXA19	Flash memory address bus
D18	339	EXA4	Flash memory address bus
D17	340	EXDIO_0	Flash memory data bus
D16	341	EXDIO_4	Flash memory data bus
D15	342	EXDIO_8	Flash memory data bus
D14	343	EXDIO_14	Flash memory data bus
D13	344	RBI_7	B phase signal input of R video (seventh bit)
D12	345	RBI_2	B phase signal input of R video (second bit)
D11	346	GBI_9	B phase signal input of G video (ninth bit)
D10	347	GBI_5	B phase signal input of G video (fifth bit)
D9	348	BBI_9	B phase signal input of B video (ninth bit)
D8	349	BBI_3	B phase signal input of B video (tenth bit)

F

Ball No.	No.	Pin Name	Function
D7	350	DEI	DE signal input
D6	351	RAI_8	A phase signal input of R video (eighth bit)
D5	352	RAI_2	A phase signal input of R video (second bit)
E5	353	RAI_1	A phase signal input of R video (first bit)
F5	354	RAI_0	A phase signal input of R video (0 bit)
G5	355	BAI_0	A phase signal input of B video (0 bit)
H5	356	VSS15	GND
J5	357	VDDHR	3.3V power supply
K5	358	XSUSB_6	X-Drive control signal output
L5	359	VSSD15	GND
M5	360	XSUSA_12	X-Drive control signal output
N5	361	XSUSA_6	X-Drive control signal output
P5	362	VSS15	GND
R5	363	ADRS_2	Address control signal output
T5	364	TESTBN	Test signal input (Not used)
U5	365	VSSL15	GND
V5	366	VSSLA	GND
W5	367	VSSLA	GND
Y5	368	VSSL15	GND
AA5	369	VDDL15	3.3V power supply
AB5	370	VSSL15	GND
AB6	371	VSSLA	GND
AB7	372	VSSLA	GND
AB8	373	VSSL15	GND
AB9	374	VSSLA	GND
AB10	375	VSSLA	GND
AB11	376	VSSL15	GND
AB12	377	VSSLA	GND
AB13	378	VSSLA	GND
AB14	379	REFRIN	Reference current generation
AB15	380	VSSBG	GND
AB16	381	VSSL15	GND
AB17	382	VSSLA	GND
AB18	383	VSSLA	GND
AB19	384	VSSL15	GND
AB20	385	VSSLA	GND
AB21	386	VSSLA	GND
AB22	387	VSSLA	GND
AA22	388	VDDLA	3.3V power supply
Y22	389	VSSL15	GND
W22	390	VSSLA	GND
V22	391	VSSLA	GND
U22	392	VSSL15	GND
T22	393	SDITMS	JTAG signal
R22	394	GPIO0_5	Microcomputer macro general-purpose port
P22	395	VSS15	GND
N22	396	YSUSA_2	Y-Drive control signal output
M22	397	YSUSA_8	Y-Drive control signal output
L22	398	VSSD15	GND
K22	399	YSUSB_2	Y-Drive control signal output

A

Ball No.	No.	Pin Name	Function
J22	400	VDDHL	3.3V power supply
H22	401	VSSD15	GND
G22	402	YSUSB_12	Y-Drive control signal output
F22	403	SCAN_1	Scan control signal output
E22	404	SCAN_5	Scan control signal output
E21	405	SCAN_6	Scan control signal output
E20	406	VSS15	GND
E19	407	EXA18	Flash memory address bus
E18	408	EXA3	Flash memory address bus
E17	409	EXDIO_1	Flash memory data bus
E16	410	VSS15	GND
E15	411	EXDIO_9	Flash memory data bus
E14	412	EXDIO_15	Flash memory data bus
E13	413	RBI_6	B phase signal input of R video (sixth bit)
E12	414	CLKS	CLK input (85MHz)
E11	415	VSS15	GND
E10	416	GBI_4	B phase signal input of G video (fourth bit)
E8	418	BBI_2	B phase signal input of B video (second bit)
E9	417	BBI_8	B phase signal input of B video (eighth bit)
E7	419	VSS15	GND
E6	420	RAI_7	A phase signal input of R video (seventh bit)
F6	421	RAI_6	A phase signal input of R video (sixth bit)
G6	422	APL_DT	APL value trigger input
H6	423	VDD15	1.5V power supply
J6	424	VBB	VBB power monitor in the DRAM
K6	425	XSUSB_5	X-Drive control signal output
L6	426	VDDD15	1.5V power supply
M6	427	XSUSA_11	X-Drive control signal output
N6	428	XSUSA_5	X-Drive control signal output
P6	429	VDD15	1.5V power supply
R6	430	ADRS_1	Address control signal output
T6	431	TESTCN	Test signal input (Not used)
U6	432	VDDL15	1.5V power supply
V6	433	VDDLA	3.3V power supply
W6	434	VDDLA	3.3V power supply
Y6	435	VDDL15	1.5V power supply
AA6	436	VDDLA	3.3V power supply
AA7	437	VDDLA	3.3V power supply
AA8	438	VDDL15	1.5V power supply
AA9	439	VDDLA	3.3V power supply
AA10	440	VDDLA	3.3V power supply
AA11	441	VDDL15	1.5V power supply
AA12	442	VDDLA	3.3V power supply
AA13	443	VDDLA	3.3V power supply
AA14	444	VDDLA	3.3V power supply
AA15	445	VDDLA	3.3V power supply
AA16	446	VDDL15	1.5V power supply
AA17	447	VDDLA	3.3V power supply
AA18	448	VDDLA	3.3V power supply
AA19	449	VDDL15	1.5V power supply

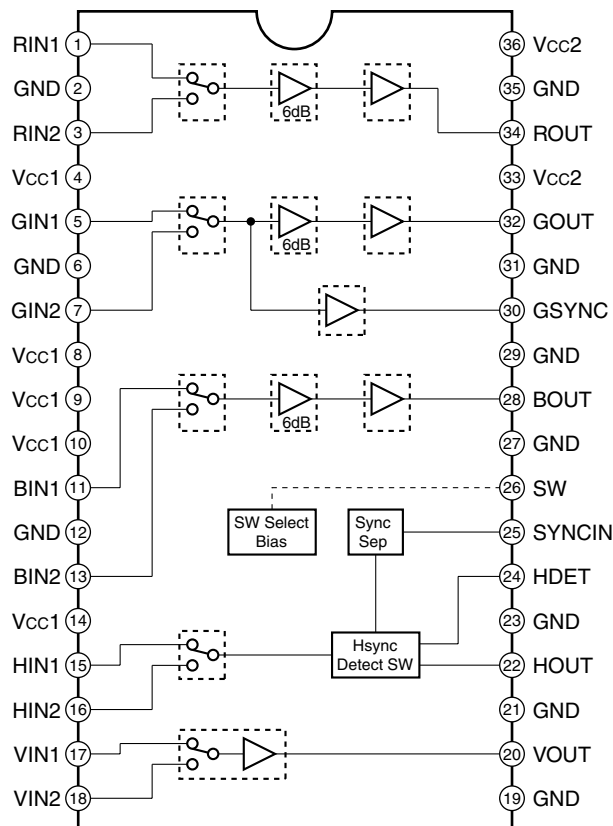
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Ball No.	No.	Pin Name	Function
AA20	450	VDDLA	3.3V power supply
AA21	451	VDDLA	3.3V power supply
Y21	452	VDDL15	1.5V power supply
W21	453	VDDLA	3.3V power supply
V21	454	VDDLA	3.3V power supply
U21	455	VDDL15	1.5V power supply
T21	456	SDITCK	JTAG signal
R21	457	GPIO0_4	Microcomputer macro general-purpose port
P21	458	VDD15	1.5V power supply
N21	459	YSUSA_3	Y-Drive control signal output
M21	460	YSUSA_9	Y-Drive control signal output
L21	461	VDDD15	1.5V power supply
K21	462	YSUSB_3	Y-Drive control signal output
J21	463	VBB	VBB power monitor in the DRAM
H21	464	VDDD15	1.5V power supply
G21	465	YSUSB_13	Y-Drive control signal output
F21	466	SCAN_2	Scan control signal output
F20	467	VDD15	1.5V power supply
F19	468	EXA17	Flash memory address bus
F18	469	EXA2	Flash memory address bus
F17	470	EXDIO_2	Flash memory data bus
F16	471	VDD15	1.5V power supply
F15	472	EXDIO_10	Flash memory data bus
F14	473	TRNSEND_I	NC pin
F13	474	VDD15	1.5V power supply
F12	475	RBI_1	B phase signal input of R video (first bit)
F11	476	VDD15	1.5V power supply
F10	477	GBI_3	B phase signal input of G video (third bit)
F9	478	BBI_7	B phase signal input of B video (seventh bit)
F8	479	BBI_1	B phase signal input of B video (first bit)
F7	480	VDD15	1.5V power supply

AN5870SB (RGB ASSY : IC6402)
(AV I/O ASSY : IC7610, IC7613)
(VIDEO SLOT 2 ASSY : IC7902)

- Wide Band Analog SW

● **Pin Arrangement / Block Diagram**



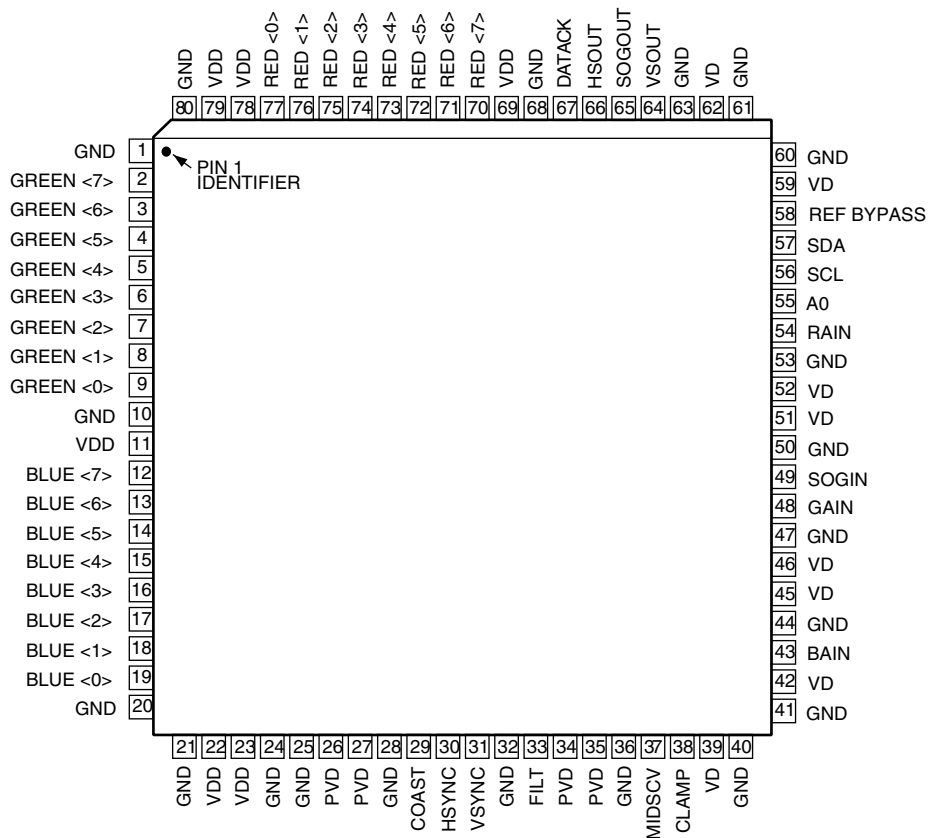
● **Pin Function**

No.	Name	Function	No.	Name	Function
1	RIN1	R input 1	19	GND	Ground (HV, HSEP, SW)
2	GND	Ground (R)	20	VOUT	V output
3	RIN2	R input 2	21	GND	Ground
4	Vcc1	5V (GSYNC)	22	HOUT	H output
5	GIN1	G input 1	23	GND	Ground
6	GND	Ground (G)	24	HDET	H detect
7	GIN2	G input 2	25	SYNCIN	Sync input
8	Vcc1	5V (R)	26	SW	SW
9	Vcc1	5V (G)	27	GND	Ground
10	Vcc1	5V (B)	28	BOUT	B output
11	BIN1	B input 1	29	GND	Ground (RGB)
12	GND	Ground (B)	30	GSYNC	GSync output
13	BIN2	B input 2	31	GND	Ground (RGB)
14	Vcc1	5V (HV, HSEP, SW)	32	GOUT	G output
15	HIN1	H input 1	33	Vcc2	12V (RGB)
16	HIN2	H input 2	34	ROUT	R output
17	VIN1	V input 1	35	GND	Ground
18	VIN2	V input 2	36	Vcc2	12V (RGB)

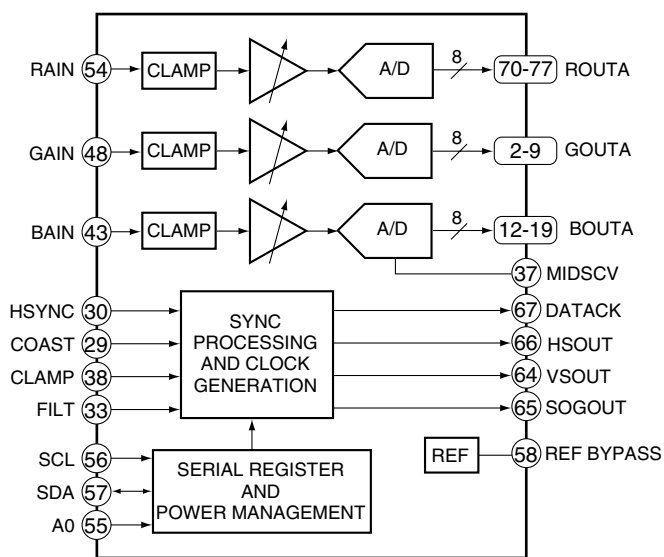
AD9883AKST-110 (RGB ASSY : IC6602)

• 110 MSPS Analog Interface

Pin Arrangement (Top View)



Block Diagram



● Pin Function

A

No.	Pin Name	I/O	Pin Function
1	GND	–	Ground
2	GREEN 7	O	Converter Green output (MSB)
3	GREEN 6	O	Converter Green output
4	GREEN 5	O	Converter Green output
5	GREEN 4	O	Converter Green output
6	GREEN 3	O	Converter Green output
7	GREEN 2	O	Converter Green output
8	GREEN 1	O	Converter Green output
9	GREEN 0	O	Converter Green output
10	GND	–	Ground
11	VDD	–	Power supply (3.3V)
12	BLUE 7	O	Converter Blue output (MSB)
13	BLUE 6	O	Converter Blue output
14	BLUE 5	O	Converter Blue output
15	BLUE 4	O	Converter Blue output
16	BLUE 3	O	Converter Blue output
17	BLUE 2	O	Converter Blue output
18	BLUE 1	O	Converter Blue output
19	BLUE 0	O	Converter Blue output
20	GND	–	Ground
21	GND	–	Ground
22	VDD	–	Power supply (3.3V)
23	VDD	–	Power supply (3.3V)
24	GND	–	Ground
25	GND	–	Ground
26	PVD	–	PLL power supply (3.3V)
27	PVD	–	PLL power supply (3.3V)
28	GND	–	Ground
29	COAST	I	PLL COAST signal input
30	HSYNC	I	Horizontal sync. input
31	VSNC	I	Vertical sync. input
32	GND	–	Ground
33	FILT	–	External filter connection pin for built-in PLL
34	PVD	–	PLL power supply (3.3V)
35	PVD	–	PLL power supply (3.3V)
36	GND	–	Ground
37	MIDSCV	–	Internal middle scale voltage bias
38	CLAMP	I	Clamp input (External clamp signal)
39	VD	–	Analog power supply (3.3V)
40	GND	–	Ground
41	GND	–	Ground
42	VD	–	Analog power supply (3.3V)
43	BAIN	I	Analog input for converter B
44	GND	–	Ground
45	VD	–	Analog power supply (3.3V)

F

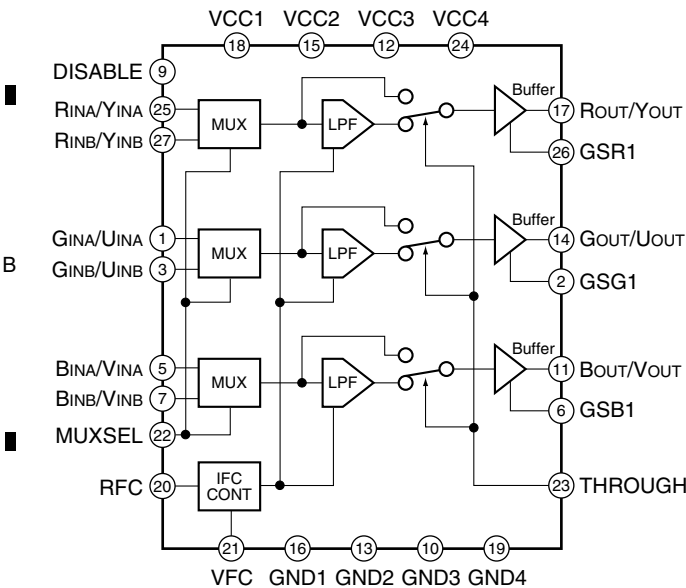
No.	Pin Name	I/O	Pin Function
46	VD	–	Analog power supply (3.3V)
47	GND	–	Ground
48	GAIN	I	Analog input for converter G
49	SOGIN	I	Input for Sync-on Green
50	GND	–	Ground
51	VD	–	Analog power supply (3.3V)
52	VD	–	Analog power supply (3.3V)
53	GND	–	Ground
54	RAIN	I	Analog input for converter R
55	A0	I	Address input 1 of serial port
56	SCL	I	Data clock (max. 100kHz) of serial port
57	SDA	I/O	Data input/output of serial port
58	REF BYPASS	–	Internal reference bypass
59	VD	–	Analog power supply (3.3V)
60	GND	–	Ground
61	GND	–	Ground
62	VD	–	Analog power supply (3.3V)
63	GND	–	Ground
64	VSOUT	O	VSYS output (phasing with DATACLK)
65	SOGOUT	O	Sync-on-Green slicer output
66	HSOUT	O	HSYS output (phasing with DATACLK)
67	DATACLK	O	Data input/output clock
68	GND	–	Ground
69	VDD	–	Power supply (3.3V)
70	RED 7	O	Converter Red output (MSB)
71	RED 6	O	Converter Red output
72	RED 5	O	Converter Red output
73	RED 4	O	Converter Red output
74	RED 3	O	Converter Red output
75	RED 2	O	Converter Red output
76	RED 1	O	Converter Red output
77	RED 0	O	Converter Red output
78	VDD	–	Power supply (3.3V)
79	VDD	–	Power supply (3.3V)
80	GND	–	Ground

■ **SM5301BS (RGB ASSY : IC6601)**

• Video Filter

A

● **Block Diagram**



B

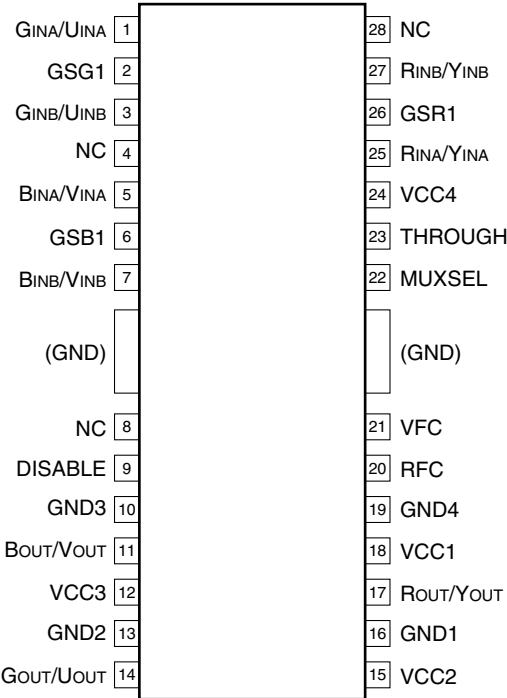
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● **Pin Arrangement (Top View)**



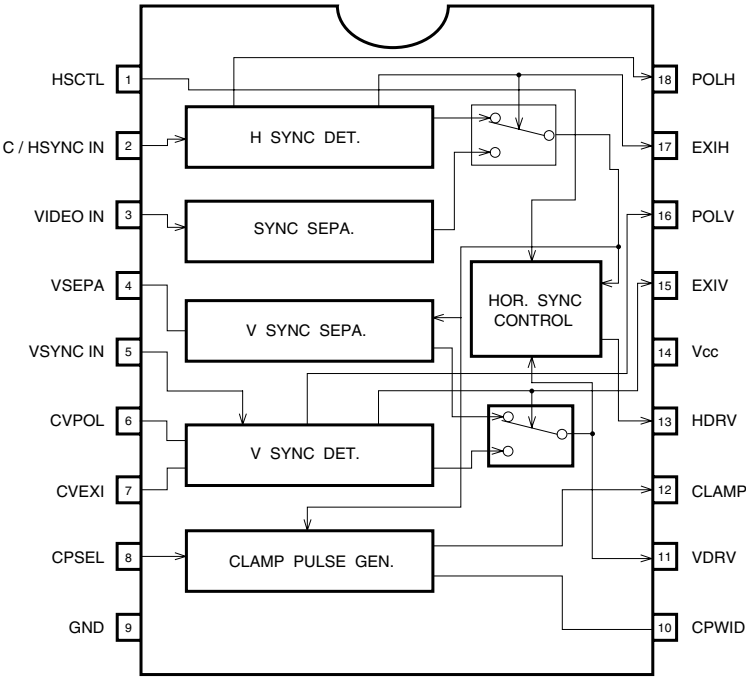
● Pin Function

No.	Pin Name	I/O	Pin Function
1	GINA/UINA	I	Analog GINA or UINA signal input. Sync signal is input on SYNCIN pin.
2	GSG1	I	GOUT/UOUT output buffer gain set input
3	GINB/UINB	I	Analog GINB or UINB signal input. Sync signal is input on SYNCIN pin.
4	(NC)	–	No connection
5	BINA/VINA	I	Analog BINA or VINA signal input. Sync signal is input on SYNCIN pin.
6	GSB1	I	BOUT/VOUT output buffer gain set input
7	BINB/VINB	I	Analog BINB or VINB signal input. Sync signal is input on SYNCIN pin.
8	(NC)	–	No connection
9	DISABLE	I	Power save function. Built-in pull-down resistor. L : Enable H : Disable (Output pins: ROUT/YOUT, GOUT/UOUT, and BOUT/VOUT are high impedance.)
10	GND3	–	Analog ground
11	BOUT/VOUT	O	B/V signal output
12	VCC3	–	Analog 5V supply
13	GND2	–	Analog ground
14	GOUT/UOUT	O	G/U signal output
15	VCC2	–	Analog 5V supply
16	GND1	–	Analog ground
17	ROUT/YOUT	O	R/Y signal output
18	VCC1	–	Analog 5V supply
19	GND4	–	Analog ground
20	RFC	–	LPF (lowpass filter) cutoff frequency setting resistor connection
21	VFC	I	LPF (lowpass filter) cutoff frequency setting voltage input
22	MUXSEL	I	Input select signal. Built-in pull-down resistor. L : XINA pin select H : XINB pin select
23	THROUGH	I	Filter through Built-in pull-down resistor. L : Filter function H : Filter through (buffer only)
24	VCC4	–	Analog 5V supply
25	RINA/YINA	I	Analog RINA or YINA signal input. Sync signal is input on SYNCIN pin.
26	GSR1	I	ROUT/YOUT output buffer gain set input
27	RINB/YINB	I	Analog RINB or YINB signal input. Sync signal is input on SYNCIN pin.
28	(NC)	–	No connection

BA7078AF (RGB ASSY : IC6604)

• Synchronous seperation IC

● Block Diagram



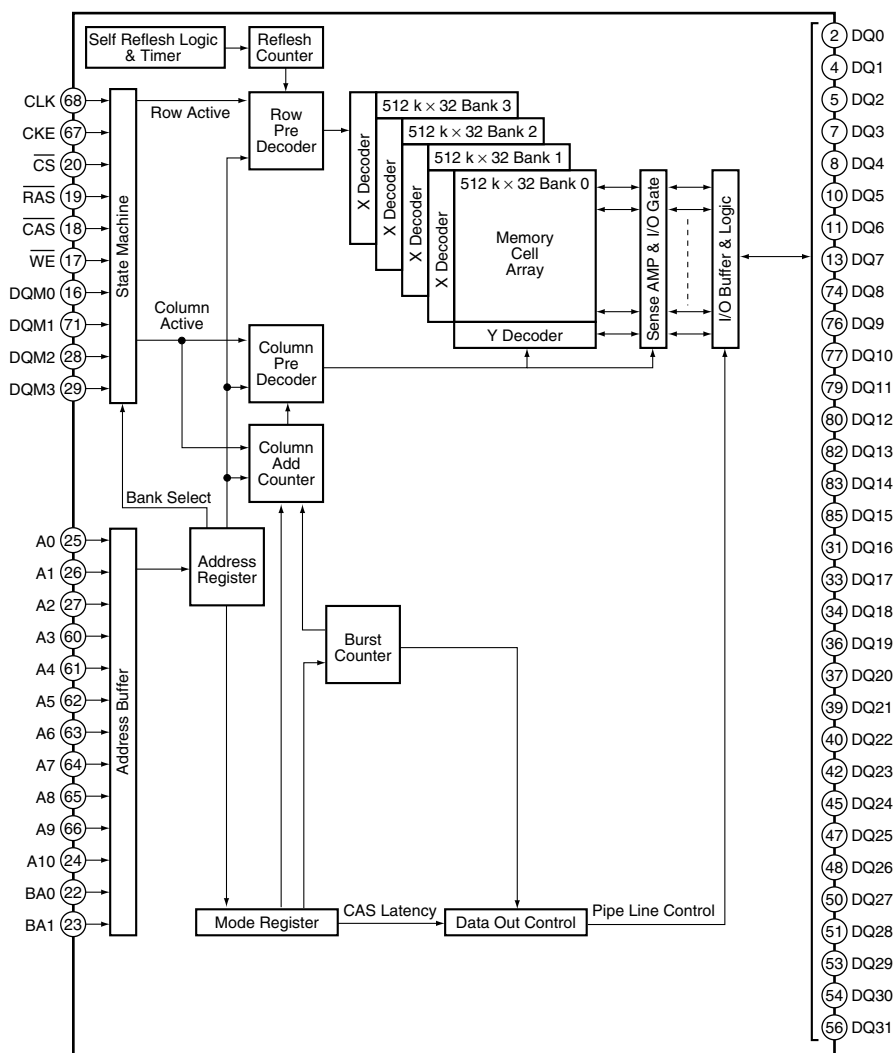
● Pin Function

No.	Pin Name	Pin Function
1	HSCTL	HDRV output Used to select whether to output the VDRV section of the HDRV output signal. High : VDRV section of HDRV is output Low : VDRV section of HDRV is not output
2	C/HSYNC IN	Composite sync / H SYNC input Input either the composite synchronization signal or the horizontal synchronization signal. Input is clamped, and is initiated by capacitor coupling.
3	VIDEO IN	SYNC ON VIDEO input Inputs the SYNC ON VIDEO signal(green). Input is sink chip clamped. Input is initiated by capacitor coupling.
4	VSEPA	f-V conversion Converts the horizontal synchronization signal frequency into a voltage. The voltage generated is proportional to the frequency of the horizontal synchronization signal. Attach a 0.56 μ F capacitor between the ground pins.
5	VSIN	V SYNC input Inputs the vertical synchronization signal.
6	CVPOL	Vertical polarity integration Integrates the vertical synchronization signal polarity detection circuit. Attach a 1.5 μ F capacitor between this pin and the ground.
7	CVEXI	Vertical existence integration Integrates the vertical synchronization signal existence detection circuit. Attach a 1 μ F capacitor between this pin and the ground.
8	CPSEL	Setting the clamp position Used to set the clamp pulse generation position to either the front or back edge of HSYNC High : The front edge is the generation position Open : Composite / H SYNC IN : The front edge is the generation position VIDEO IN : The back edge is the generation position Low : The back edge is the generation position
9	GND	Ground
10	CPWID	Setting the clamp pulse width Sets the clamp pulse width according to the attached time constant. Attach a resistor between this pin and VCC and, a capacitor between this pin and GND. When R = 3.9k Ω and C = 100pF, pulse width is approximately 400 ns. Set the resistor to register an abnormality at 1k Ω .
11	VDRV	VDRV output Outputs the vertical synchronization signal. The output signal has positive polarity.
12	CLAMP	Clamp output Outputs the clamp pulse generated from the vertical synchronization signal. The output signal has a positive polarity.
13	HDRV	HDRV output Outputs the clamp pulse generated from the horizontal synchronization signal. The output signal has positive polarity.
14	Vcc	Power supply
15	EXIV	Vertical existence output Indicates whether the vertical synchronization signal exists.
16	POLV	Vertical polarity output Indicates the polarity of the vertical synchronization signal.
17	EXIH	Horizontal existence output Indicates whether the horizontal synchronization signal exists.
18	POLH	Horizontal polarity output Indicates the polarity of the horizontal synchronization signal.

IC42S32200-7TG-K (RGB ASSY : IC7001, IC7002)

• Synchronous DRAM

Block Diagram



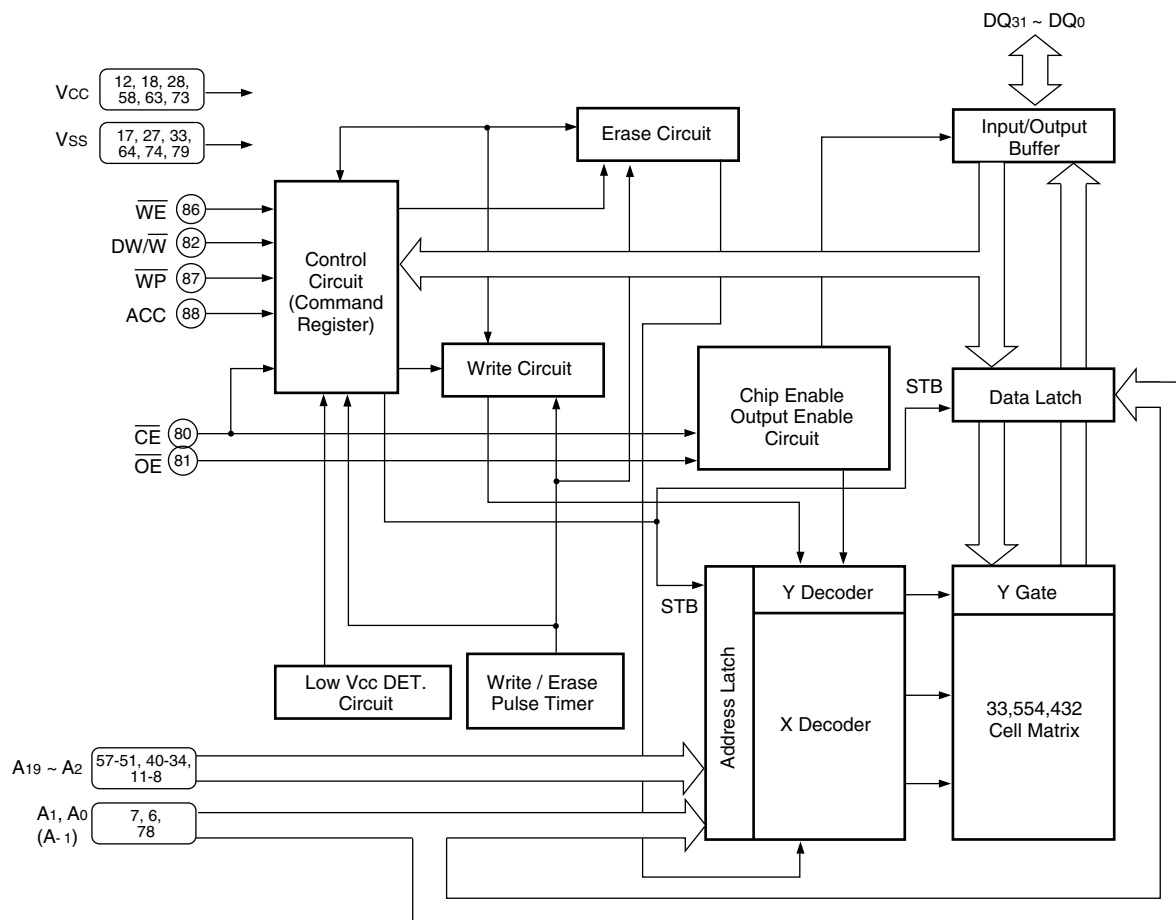
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply	44	VSS	–	Ground
2	DQ0	I/O	Data input/output	45	DQ24	I/O	Data input/output
3	VDDQ	–	Power supply for output buffer	46	VSSQ	–	Ground for output buffer
4	DQ1	I/O	Data input/output	47	DQ25	I/O	Data input/output
5	DQ2	I/O	Data input/output	48	DQ26	I/O	Data input/output
6	VSSQ	–	Ground for output buffer	49	VDDQ	–	Power supply for output buffer
7	DQ3	I/O	Data input/output	50	DQ27	I/O	Data input/output
8	DQ4	I/O	Data input/output	51	DQ28	I/O	Data input/output
9	VDDQ	–	Power supply for output buffer	52	VSSQ	–	Ground for output buffer
10	DQ5	I/O	Data input/output	53	DQ29	I/O	Data input/output
11	DQ6	I/O	Data input/output	54	DQ30	I/O	Data input/output
12	VSSQ	–	Ground for output buffer	55	VDDQ	–	Power supply for output buffer
13	DQ7	I/O	Data input/output	56	DQ31	I/O	Data input/output
14	NC	–	No connection	57	NC	–	No connection
15	VDD	–	Power supply	58	VSS	–	Ground
16	DQM0	I	Data input/output mask	59	DQM3	I	Data input/output mask
17	/WE	I	Write enable	60	A3	I	Address input
18	/CAS	I	Column address strobe	61	A4	I	Address input
19	/RAS	I	Row address strobe	62	A5	I	Address input
20	/CS	I	Chip select input	63	A6	I	Address input
21	NC	–	No connection	64	A7	I	Address input
22	BA0	I	Bank address input	65	A8	I	Address input
23	BA1	I	Bank address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	NC	–	No connection
27	A2	I	Address input	70	NC	–	No connection
28	DQM2	I	Data input/output mask	71	DQM1	I	Data input/output mask
29	VDD	–	Power supply	72	VSS	–	Ground
30	NC	–	No connection	73	NC	–	No connection
31	DQ16	I/O	Data input/output	74	DQ8	I/O	Data input/output
32	VSSQ	–	Ground for output buffer	75	VDDQ	–	Power supply for output buffer
33	DQ17	I/O	Data input/output	76	DQ9	I/O	Data input/output
34	DQ18	I/O	Data input/output	77	DQ10	I/O	Data input/output
35	VDDQ	–	Power supply for output buffer	78	VSSQ	–	Ground for output buffer
36	DQ19	I/O	Data input/output	79	DQ11	I/O	Data input/output
37	DQ20	I/O	Data input/output	80	DQ12	I/O	Data input/output
38	VSSQ	–	Ground for output buffer	81	VDDQ	–	Power supply for output buffer
39	DQ21	I/O	Data input/output	82	DQ13	I/O	Data input/output
40	DQ22	I/O	Data input/output	83	DQ14	I/O	Data input/output
41	VDDQ	–	Power supply for output buffer	84	VSSQ	–	Ground for output buffer
42	DQ23	I/O	Data input/output	85	DQ15	I/O	Data input/output
43	VDD	–	Power supply	86	VSS	–	Ground

MBM29PL3200BE70PFV (RGB ASSY : IC7152)

• Page Mode Flash Memory

Block Diagram



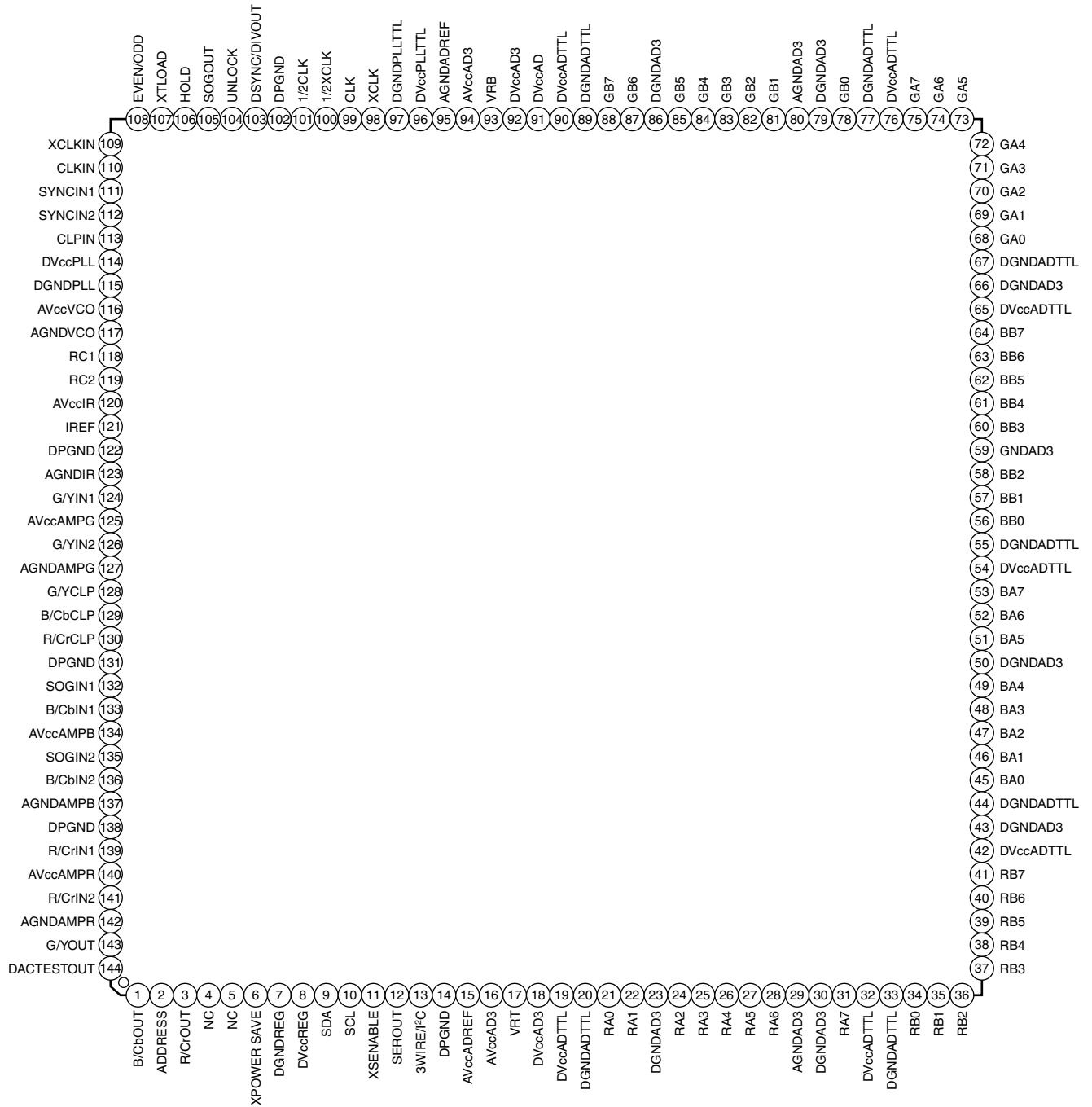
Pin Function

No.	Pin Name	I/O	Pin Function
57-51, 40-34, 11-6, 78	$A_{19} - A_0, A-1$	I	Address input
78-75, 72-65, 62-59, 32-19, 26-19, 16-13	$DQ_{31} - DQ_0$	I/O	Data input/output
80	CE	I	Chip enable
81	OE	I	Output enable
86	WE	I	Write enable
82	$\overline{DW}/\overline{W}$	I	16 bit, 32 bit mode switch
87	WP	I	Write protect
88	ACC	I	Acceleration
17, 27, 33, 64, 74, 79	Vss	—	Ground
12, 18, 28, 58, 63, 73	Vcc	—	Power supply
1-5, 41-50, 83-85, 89, 90	N.C.	—	No connection

■ CXA3516R (RGB ASSY : IC6001)

• AD + PLL IC

● Pin Arrangement (Top View)



4



● Pin Function

No.	Symbol	I/O	Pin Function
1	B/CbOUT	O	Amplifier output signal monitor
2	ADDRESS	I	I ² C slave address setting
3	R/CrOUT	O	Amplifier output signal monitor
4	NC	–	Not used
5	NC	–	Not used
6	XPOWER SAVE	I	Power save setting
7	DGNDREG	–	Register GND
8	DVccREG	–	Register power supply
9	SDA	I	Control register data input
10	SCL	I	Control register CLK input
11	XSENABLE	I	Enable signal input for 3-wire control register
12	SEROUT	O	3-wire control register data readout
13	3WIRE/I ² C	I	Selection of input between I ² C bus and 3-wire bus
15	AVccADREF	–	Reference power supply for A/D converter
16, 94	AVccAD3	–	Analog power supply for A/D converter
17	VRT	O	Top reference voltage output for A/D converter
18, 92	DVccAD3	–	Digital power supply for A/D converter
19, 32, 42, 54, 65, 76, 90	DVccADTTL	–	TTL output power supply for A/D converter
20, 33, 44, 55, 67, 77, 89	DGNDADTTL	–	TTL output GND for A/D converter
21, 22, 24-28, 31	RA0 - RA7	O	Data output for R-channel port A side
23, 30, 43, 50, 59, 66, 79, 86	DGNDAD3	–	Digital GND for A/D converter
29, 80	AGNDAD3	–	Analog GND for A/D converter
34-41	RB0 - RB7	O	Data output for R-channel port B side
45-49, 51-53	BA0 - BA7	O	Data output for B-channel port A side
56-58, 60-64	BB0 - BB7	O	Data output for B-channel port B side
68-75	GA0 - GA7	O	Data output for G-channel port A side
78, 81-85, 87, 88	GB0 - GB7	O	Data output for G-channel port B side
91	DVccAD	–	Digital power supply for A/D converter
93	VRB	O	Bottom reference voltage output for A/D converter
95	AGNDADREF	–	Reference voltage GND for A/D converter
96	DVccPLLTTTL	–	TTL output power supply for PLL
97	DGNDPLLTTTL	–	TTL output GND for PLL
98	XCLK	O	Inverted CLK output
99	CLK	O	CLK output
100	1/2XCLK	O	Inverted 1/2CLK output
101	1/2CLK	O	1/2CLK output
103	DSYNC/DIVOUT	O	DSYNC or DIVOUT signal output
104	UNLOCK	O	Unlock signal output
105	SOGOUT	O	Output for SYNC ON GREEN
106	HOLD	I	Input for phase comparison disable signal

A

No.	Symbol	I/O	Pin Function
107	XTLOAD	I	Programmable counter reset setting
108	EVEN/ODD	I	Inverted pulse input of ADC sampling CLK
109	XCLKIN	I	Inverted CLK input for testing
110	CLKIN	I	CLK input for testing
111	SYNCIN1	I	Sync input 1
112	SYNCIN2	I	Sync input 2
113	CLPIN	I	Clamp pulse input
114	DVccPLL	–	Digital power supply for PLL
115	DGNDPLL	–	Digital GND for PLL
116	AVccVCO	–	Analog power supply for PLL VCO
117	AGNDVCO	–	Analog GND for PLL VCO
118	RC1	–	External pin for PLL loop filter
119	RC2	–	External pin for PLL loop filter
120	AVccIR	–	Analog power supply for IREF
121	IREF	I	Current setup
123	AGNDIR	–	Analog GND for TREF
124	G/YIN1	I	G/Y signal input 1
125	AVccAMPG	–	Power supply for G/Y amplifier block
126	G/YIN2	I	G/Y signal input 2
127	AGNDAMPG	–	GND for G/Y amplifier block
128	G/YCLP	–	Clamp capacitor for brightness
129	B/CbCLP	–	Clamp capacitor for brightness
130	R/CrCLP	–	Clamp capacitor for brightness
132	SOGIN1	I	SYNC ON GREEN signal input 1
133	B/CbIN1	I	B/Cb signal input 1
134	AVccAMPB	–	Power supply for B/Cb amplifier block
135	SOGIN2	I	SYNC ON GREEN signal input 2
136	B/CbIN2	I	B/Cb signal input 2
137	AGNDAMPB	–	GND for B/Cb amplifier block
139	R/CrIN1	I	R/Cr signal input 1
140	AVccAMPB	–	Power supply for R/Cr amplifier block
141	R/CrIN2	I	R/Cr signal input 2
142	AGNDAMPB	–	GND for R/Cr amplifier block
143	G/YOUT	O	Monitor pin for amplifier output signal
144	DAC TEST OUT	O	DAC testing output for amplifier block control register
14, 102, 122, 131, 138	DPGND	–	GND

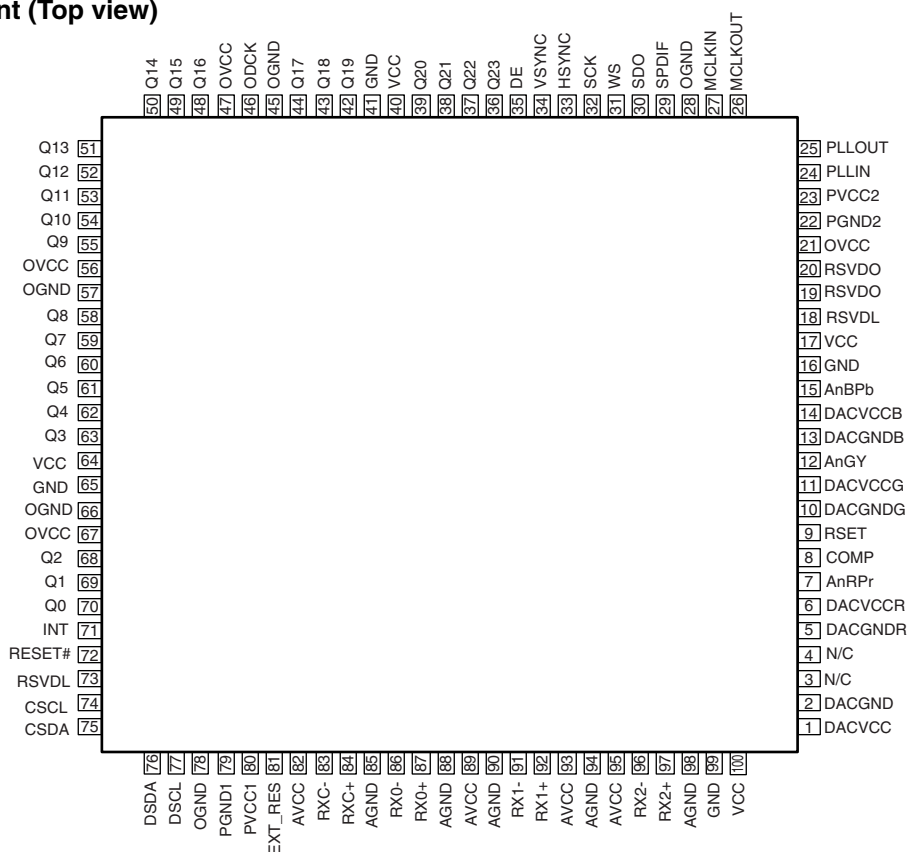
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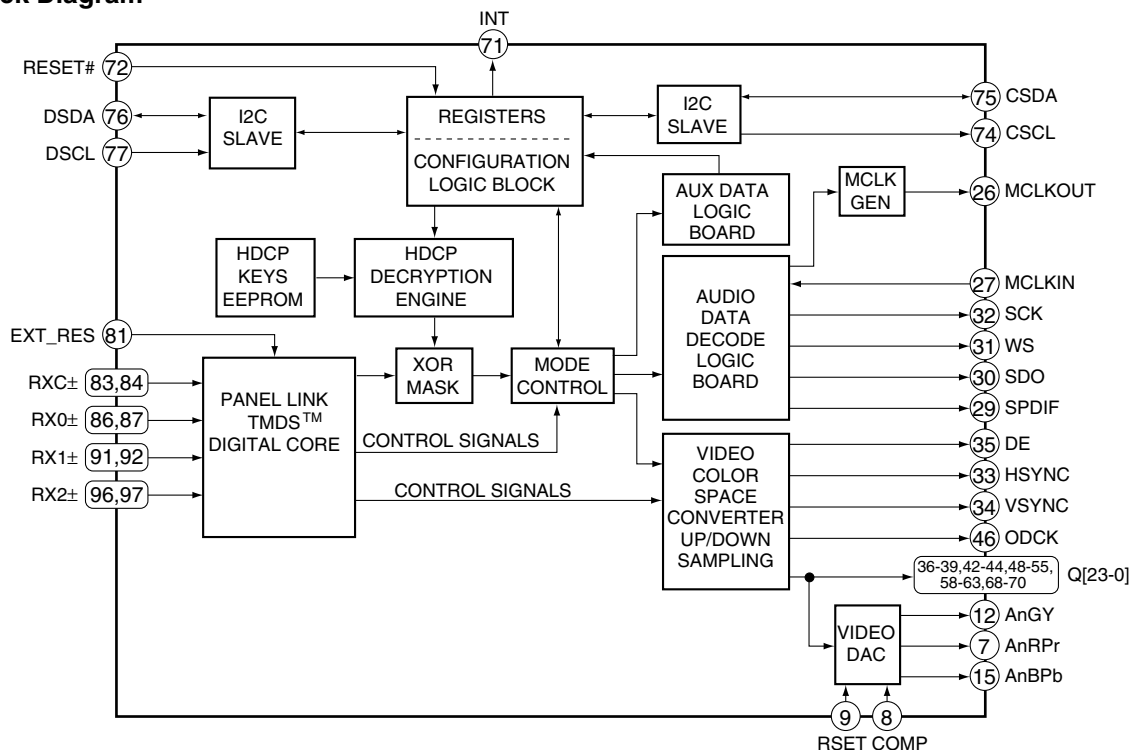
■ SII9993CTG100 (AV I/O ASSY : IC6810)

• HDCP Panel Link Receiver

● Pin Arrangement (Top view)



● Block Diagram



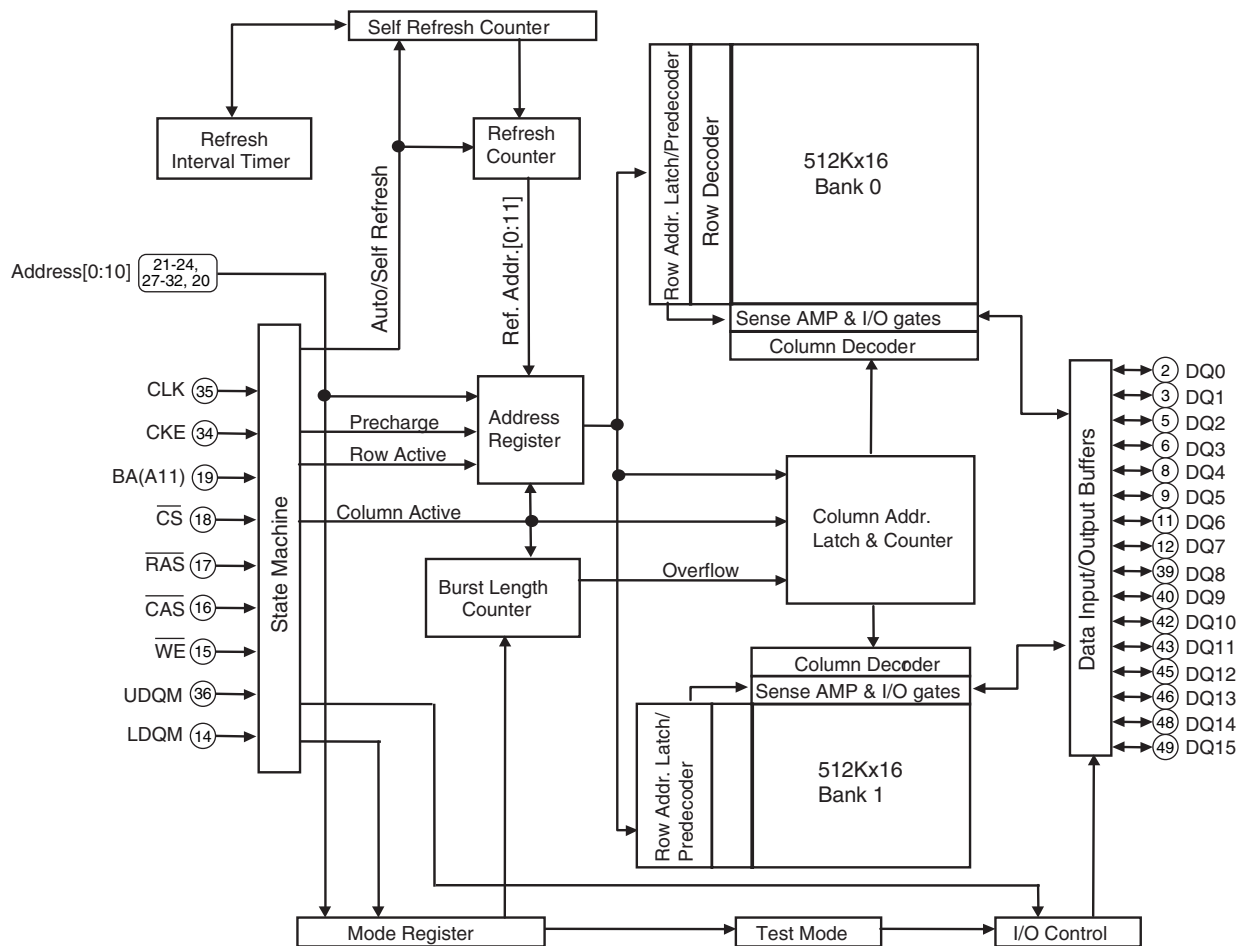
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	DACVCC	–	DAC power supply (3.3V)	51	Q13	O	24-bit output pixel data bus
2	DACGND	–	DAC ground	52	Q12	O	24-bit output pixel data bus
3	N/C	–	No connection	53	Q11	O	24-bit output pixel data bus
4	N/C	–	No connection	54	Q10	O	24-bit output pixel data bus
5	DACGNDR	–	DAC Red ground	55	Q9	O	24-bit output pixel data bus
6	DACVCCR	–	DAC Red power supply (3.3V)	56	OVCC	–	Output bus power supply (3.3V)
7	AnRPr	O	Red, Pr output of analog video	57	OGND	–	Output bus ground
8	COMP	I	For reference amp. correction of DAC inside	58	Q8	O	24-bit output pixel data bus
9	RSET	I	Full scale adjustment resistor input	59	Q7	O	24-bit output pixel data bus
10	DACGNDG	–	DAC Green ground	60	Q6	O	24-bit output pixel data bus
11	DACVCCG	–	DAC Green power supply (3.3V)	61	Q5	O	24-bit output pixel data bus
12	AnGY	O	Green, Y output of analog video	62	Q4	O	24-bit output pixel data bus
13	DACGNDB	–	DAC Blue ground	63	Q3	O	24-bit output pixel data bus
14	DACVCCB	–	DAC Blue power supply (3.3V)	64	VCC	–	Digital power supply (3.3V)
15	AnBPb	O	Blue, Pb output of analog video	65	GND	–	Digital ground
16	GND	–	Digital ground	66	OGND	–	Output bus ground
17	VCC	–	Digital power supply (3.3V)	67	OVCC	–	Output bus power supply (3.3V)
18	RSVDL	I	Reserved Fixed to low.	68	Q2	O	24-bit output pixel data bus
19	RSVDD	O	Reserved No connection	69	Q1	O	24-bit output pixel data bus
20	RSVDD	O	Reserved No connection	70	Q0	O	24-bit output pixel data bus
21	OVCC	–	Output bus power supply (3.3V)	71	INT	O	Interruption output
22	PGND2	–	Audio PLL ground	72	RESET#	I	Reset Activ low.
23	PVCC2	–	Audio PLL power supply (3.3V)	73	RSVDL	I	Reserved Fixed to low.
24	PLLIN	I/O	PLL filter input	74	CSCL	I	Configuration I2C clock
25	PLLOUT	I/O	PLL filter output	75	CSDA	I/O	Configuration I2C data
26	MCCLKOUT	O	Audio master clock output	76	DSDA	I/O	DDC I2C data
27	MCCLKIN	I	Reference audio master clock input	77	DSCL	I	DDC I2C clock
28	OGND	–	Output bus ground	78	OGND	–	Output bus ground
29	SPDIF	O	SPDIF audio output	79	PGND1	–	PLL ground
30	SDO	O	I2S serial data output	80	PVCC1	–	PLL power supply (3.3V)
31	WS	O	I2S word selecting output	81	EXT_RES	I	Input impedance adjustment
32	SCK	O	I2S serial clock output	82	AVCC	–	Analog power supply (3.3V)
33	HSYNC	O	Horizontal sync. control signal output	83	RXC-	I	TMDS data input
34	VSNC	O	Vertical sync. control signal output	84	RXC+	I	TMDS data input
35	DE	O	Data enable	85	AGND	–	Analog ground
36	Q23	O	24-bit output pixel data bus	86	RX0-	I	TMDS data input
37	Q22	O	24-bit output pixel data bus	87	RX0+	I	TMDS data input
38	Q21	O	24-bit output pixel data bus	88	AGND	–	Analog ground
39	Q20	O	24-bit output pixel data bus	89	AVCC	–	Analog power supply (3.3V)
40	VCC	–	Digital power supply (3.3V)	90	AGND	–	Analog ground
41	GND	–	Digital ground	91	RX1-	I	TMDS data input
42	Q19	O	24-bit output pixel data bus	92	RX1+	I	TMDS data input
43	Q18	O	24-bit output pixel data bus	93	AVCC	–	Analog power supply (3.3V)
44	Q17	O	24-bit output pixel data bus	94	AGND	–	Analog ground
45	OGND	–	Output bus ground	95	AVCC	–	Analog power supply (3.3V)
46	ODCK	O	Data clock output	96	RX2-	I	TMDS data input
47	OVCC	–	Output bus power supply (3.3V)	97	RX2+	I	TMDS data input
48	Q16	O	24-bit output pixel data bus	98	AGND	–	Analog ground
49	Q15	O	24-bit output pixel data bus	99	GND	–	Digital ground
50	Q14	O	24-bit output pixel data bus	100	VCC	–	Digital power supply (3.3V)

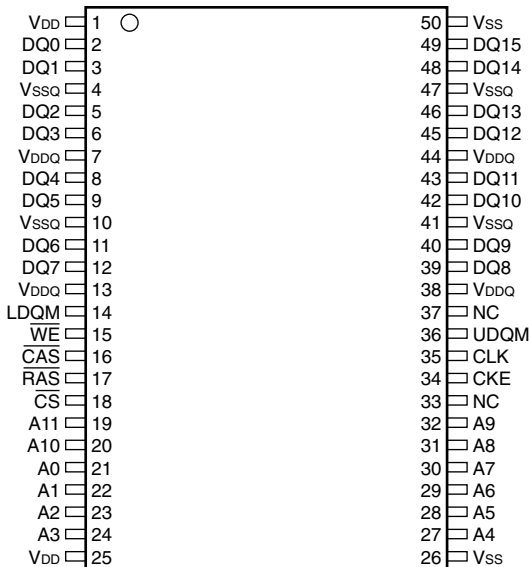
IC42S16100-7TG-K (VIDEO SLOT 2 ASSY : IC6106)

• 16M SDRAM

Block Diagram



Pin Arrangement



● Pin Function

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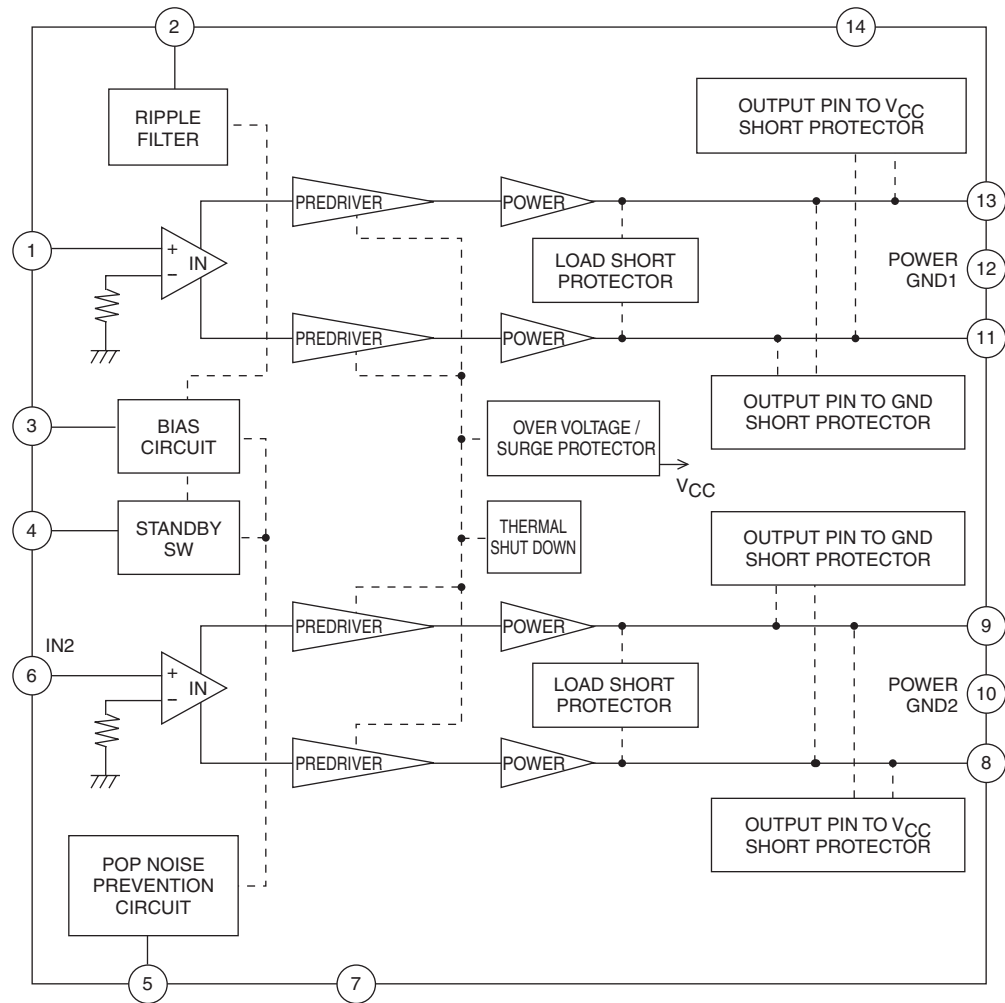
F

No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply
2	DQ0	I/O	Data input/output
3	DQ1	I/O	Data input/output
4	VSSQ	–	Ground for DQ
5	DQ2	I/O	Data input/output
6	DQ3	I/O	Data input/output
7	VDDQ	–	Power supply for DQ
8	DQ4	I/O	Data input/output
9	DQ5	I/O	Data input/output
10	VSSQ	–	Ground for DQ
11	DQ6	I/O	Data input/output
12	DQ7	I/O	Data input/output
13	VDDQ	–	Power supply for DQ
14	LDQM	I	Data input/output mask
15	/WE	I	Write enable
16	/CAS	I	Column address strobe
17	/RAS	I	Row address strobe
18	/CS	I	Chip select input
19	A11	I	Address input
20	A10	I	Address input
21	A0	I	Address input
22	A1	I	Address input
23	A2	I	Address input
24	A3	I	Address input
25	VDD	–	Power supply
26	VSS	–	Ground
27	A4	I	Address input
28	A5	I	Address input
29	A6	I	Address input
30	A7	I	Address input
31	A8	I	Address input
32	A9	I	Address input
33	NC	–	No connection
34	CKE	I	Clock enable
35	CLK	I	System clock input
36	UDQM	I	Data input/output mask
37	NC	–	No connection
38	VDDQ	–	Power supply for DQ
39	DQ8	I/O	Data input/output
40	DQ9	I/O	Data input/output
41	VSSQ	–	Ground for DQ
42	DQ10	I/O	Data input/output
43	DQ11	I/O	Data input/output
44	VDDQ	–	Power supply for DQ
45	DQ12	I/O	Data input/output
46	DQ13	I/O	Data input/output
47	VSSQ	–	Ground for DQ
48	DQ14	I/O	Data input/output
49	DQ15	I/O	Data input/output
50	VSS	–	Ground

LA4625 (AUDIO AMP ASSY : IC5003)

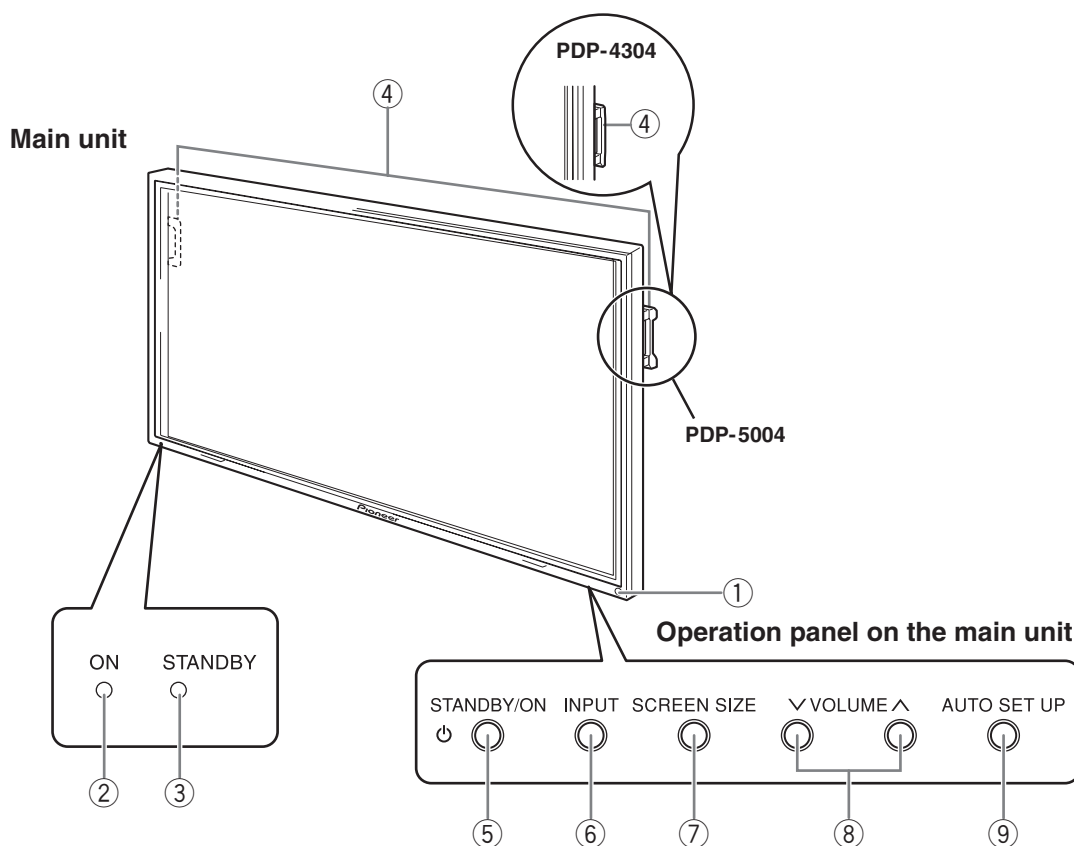
• 2ch BLT AF Power Amp. IC

● Block Diagram



8. PANEL FACILITIES

MAIN UNIT



Main unit

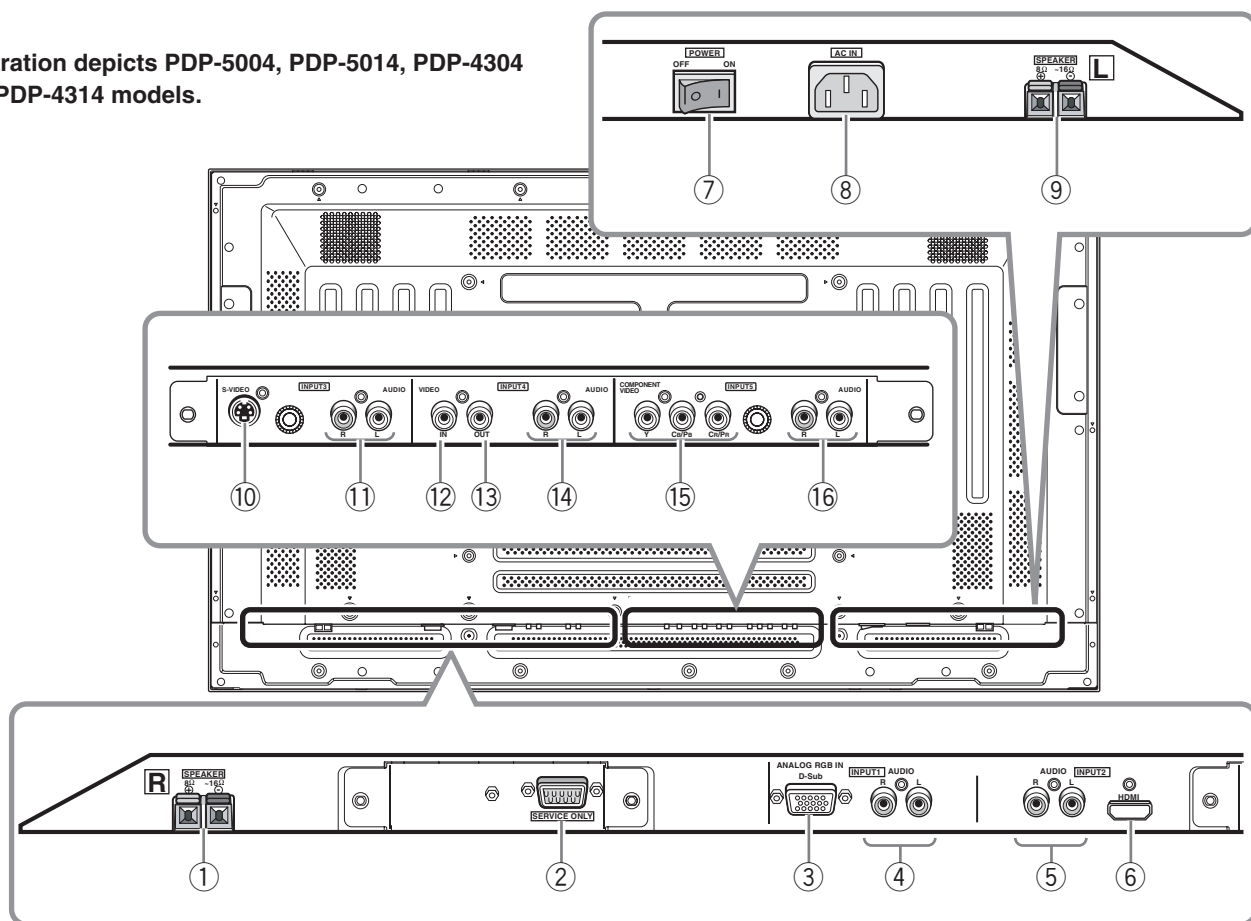
- ① **Remote control sensor**
Point the remote control toward the remote sensor to operate the unit.
- ② **ON indicator**
Lights green when the plasma display is operating.
When flashing, the indicator is used to indicate error messages.
- ③ **STANDBY indicator**
Lights red when the unit is in standby mode.
When flashing, the indicator is used to indicate error messages.
- ④ **Handles**
The plasma displays PDP-5004 and PDP-4304 utilize differing methods of handle attachment, but the handles themselves are used in the same way.

Operation panel on the main unit

- ⑤ **STANDBY/ON button**
Press to put the display in operation or standby mode.
- ⑥ **INPUT button**
Press to select the input.
- ⑦ **SCREEN SIZE button**
Press to select the screen size.
- ⑧ **VOLUME (+/-) buttons**
When not indicated for use in onscreen menu items, these buttons are used for adjusting the sound volume.
- ⑨ **AUTO SET UP button**
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.

■ CONNECTION PANEL

Illustration depicts PDP-5004, PDP-5014, PDP-4304 and PDP-4314 models.



Plasma Display Section

The plasma display is provided with 5 video input connectors, 1 video output connector, audio input jacks and speaker terminals.

For instructions regarding connections, consult the pages noted in parentheses by each item.

- ① **SPEAKER (R) terminal**
For connection of an external right speaker.
Connect a speaker whose impedance is 8 – 16Ω .
- ② **RS-232 Terminal (used in the factory setup)**
- ③ **ANALOG RGB IN (INPUT1) (mini D-sub 15 pin)**
For connecting components equipped with RGB outputs jacks, such as a personal computer or external RGB decoder; or components equipped with component output jacks, such as a DVD recorder. Make sure that the connection made corresponds to the format of the signal output from the connected component.
- ④ **AUDIO (INPUT1) (RCA pin jack)**
Use to obtain sound when INPUT1 is selected.
Connect this jack to the audio output connector of the device connected to INPUT1 to this unit.

Note

The left audio channel (L) jack is not compatible with monaural input sources.

⑤ AUDIO (INPUT2) (RCA Pin jacks)

Use to obtain sound when INPUT2 (analog audio) is selected.

Connect these jacks to the audio output connectors of components connected to INPUT2.

Note

The left audio channel (L) jack is not compatible with monaural input sources.

⑥ HDMI (INPUT2) (HDMI jack)

For connection of components that have a digital video output terminal such as a digital set top box, DVD player, etc. compatible with HDCP. Before attempting to connect one of these devices, read its operating instructions to make sure that it can be connected.

(HDCP = High-bandwidth Digital Content Protection)
(HDMI = High Definition Multimedia Interface)

⑦ MAIN POWER switch

Use to switch the main power of the plasma display on and off.

⑧ AC IN

A power cable is furnished with the plasma display; connect one end of the power cable to this connector, and the other end to a standard AC power source.

⑨ SPEAKER (L) terminal

For connection of an external left speaker. Connect a speaker that has an impedance of 8 –16Ω.

⑩ S-VIDEO (INPUT3) (S-video jack)

For connection of components that have an S-video output jack such as a video deck, video camera, laser disc player, or DVD recorder.

⑪ AUDIO R/L (INPUT3) (RCA Pin jacks)

Use to obtain sound when INPUT3 is selected.
Connect these jacks to the audio output connectors of components connected to INPUT3 to this unit.

⑫ VIDEO IN (INPUT4) (RCA Pin jack)

For connection of components that have a composite video output jack such as a video deck, video camera, laser disc player, or DVD recorder.

⑬ VIDEO OUT (INPUT4) (RCA Pin jack)

Use the VIDEO OUT (INPUT4) jack to output the video signal to an external monitor or other component.

Note

The video signal will not be output from the VIDEO OUT (INPUT4) jack when the main power of this display is off or in standby mode.

⑭ AUDIO R/L (INPUT4) (RCA Pin jacks)

Use to obtain sound when INPUT4 is selected.
Connect these jacks to the audio output connectors of components connected to INPUT4 to this unit.

⑮ COMPONENT VIDEO (INPUT5) (RCA Pin jacks)

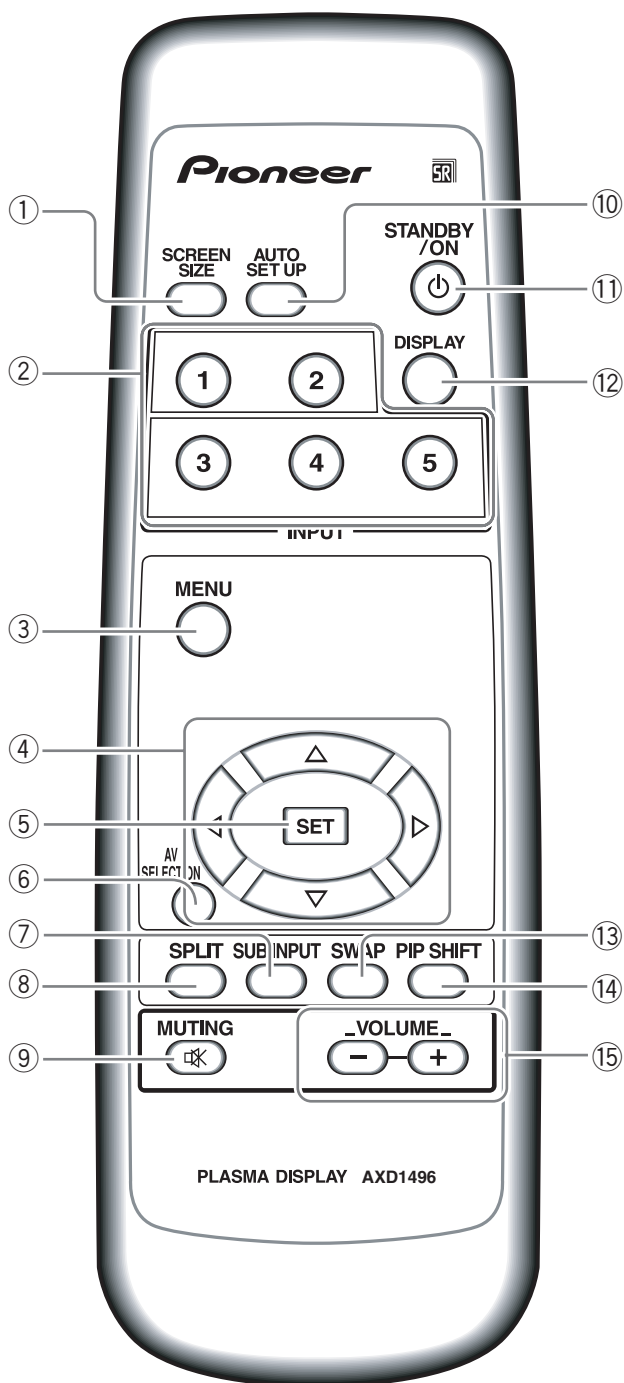
For connection of components that have component video output jacks such as a DVD recorder.

⑯ AUDIO R/L (INPUT5) (RCA Pin jacks)

Use to obtain sound when INPUT5 is selected. Connect these jacks to the audio output connectors of components connected to INPUT5 to this unit.

■ REMOTE CONTROL UNIT

[PDP-5004, PDP-4304]



- ① **SCREEN SIZE button**
Press to select the screen size.
- ② **INPUT buttons**
Press to select the input.
- ③ **MENU button**
Press to open and close the on-screen menu.
- ④ **ADJUST (▲/▼/▶/◀) buttons**
Use to navigate menu screens and to adjust various settings on the unit.
- ⑤ **SET button**
Press to adjust or enter various settings on the unit.
- ⑥ **AV SELECTION button**
Press to switch to Picture settings.
(VIDEO mode: DYNAMIC, STANDARD, MOVIE, GAME, USER
PC mode: STANDARD, USER)
- ⑦ **SUB INPUT button**
During multi-screen display, use this button to change inputs to subscreens.
- ⑧ **SPLIT button**
Press to switch to multi-screen display.
- ⑨ **MUTING button**
Press to mute the volume.
- ⑩ **AUTO SET UP button**
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.
- ⑪ **STANDBY/ON button**
Press to put the unit in operation or standby mode.
- ⑫ **DISPLAY button**
Press to view the unit's current input and setup mode.
- ⑬ **SWAP button**
During multi-screen display, use this button to switch between main screen and subscreen.
- ⑭ **PIP SHIFT button**
When using PinP mode with multi-screen display, use this button to move the position of subscreen.
- ⑮ **VOLUME (+/-) buttons**
Use to adjust the volume.

A [PDP-5014, PDP-4314]

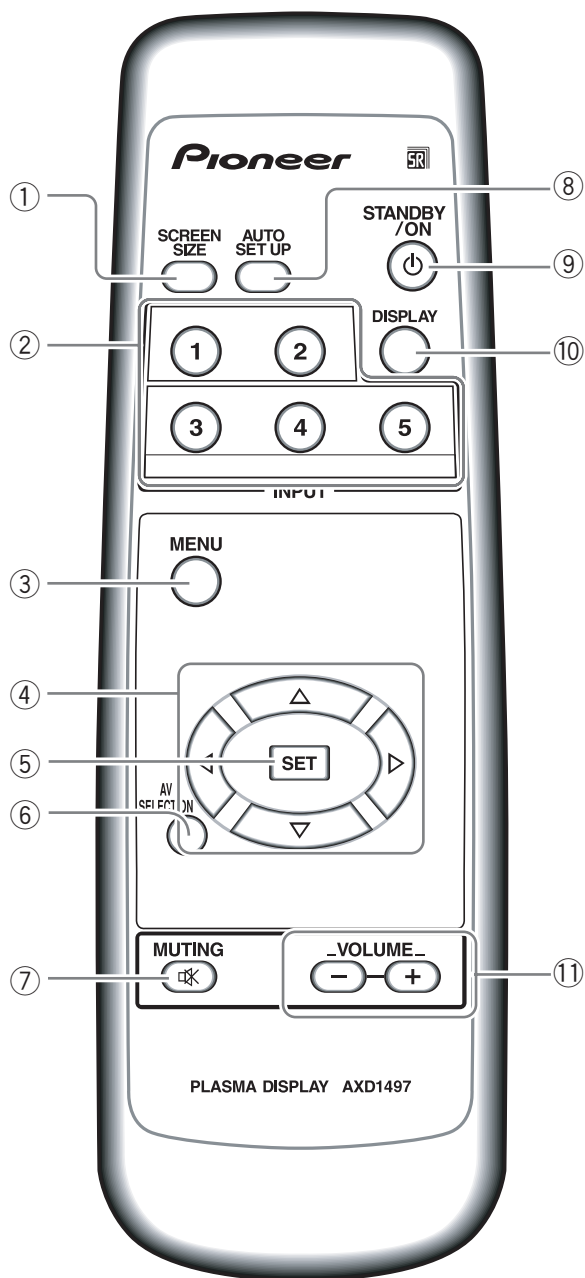
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- ① **SCREEN SIZE button**
Press to select the screen size.
- ② **INPUT buttons**
Press to select the input.
- ③ **MENU button**
Press to open and close the on-screen menu.
- ④ **ADJUST (▲/▼/▶/◀) buttons**
Use to navigate menu screens and to adjust various settings on the unit.
- ⑤ **SET button**
Press to adjust or enter various settings on the unit.
- ⑥ **AV SELECTION button**
Press to switch to Picture settings.
(VIDEO mode: DYNAMIC, STANDARD, MOVIE, GAME, USER
PC mode: STANDARD, USER)
- ⑦ **MUTING button**
Press to mute the volume.
- ⑧ **AUTO SET UP button**
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.
- ⑨ **STANDBY/ON button**
Press to put the unit in operation or standby mode.
- ⑩ **DISPLAY button**
Press to view the unit's current input and setup mode.
- ⑪ **VOLUME (+/-) buttons**
Use to adjust the volume.

■ INSTALLATION OF THE UNIT UNIT

Installation using the optional PIONEER stand or installation bracket

- Please be sure to request installation or mounting of this unit or the installation bracket by the dealer where purchased.
- When installing, be sure to use the bolts provided with the stand or installation bracket.
- For details concerning installation, please refer to the instruction manual provided with the stand or installation bracket.

Installation using accessories other than the PIONEER stand or installation bracket (sold separately)

- When possible, please install using parts and accessories manufactured by PIONEER. PIONEER will not be held responsible for accident or damage caused by the use of parts and accessories manufactured by other companies.
- For custom installation, please consult the dealer where the unit was purchased.

Wall-mount installation of the unit

This unit has been designed with bolt holes for wall-mount installation, etc. The installation holes that can be used are shown in the diagram below.

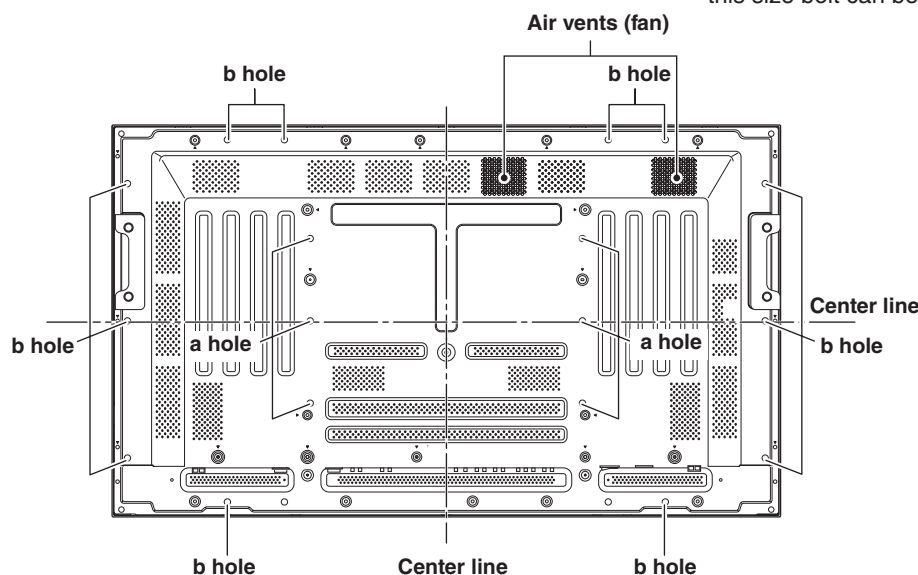
- Be sure to attach in 4 or more locations above and below, left and right of the center line.
- Use bolts that are long enough to be inserted 1/2 inch (12 mm) to 11/16 inch (18 mm) into the main unit from the attaching surface for both a holes.
- Refer to the side view diagram below.
- As this unit is constructed with glass, be sure to install it on a flat, unwarped surface.

⚠ CAUTION

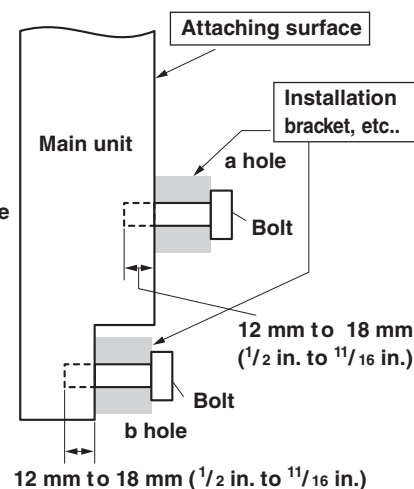
To avoid malfunction, overheating of this unit, and possible fire hazard, make sure that the vents on the main unit are not blocked when installing. Also, as hot air is expelled from the air vents, be careful of deterioration and dirt build up on rear surface wall, etc..

⚠ CAUTION

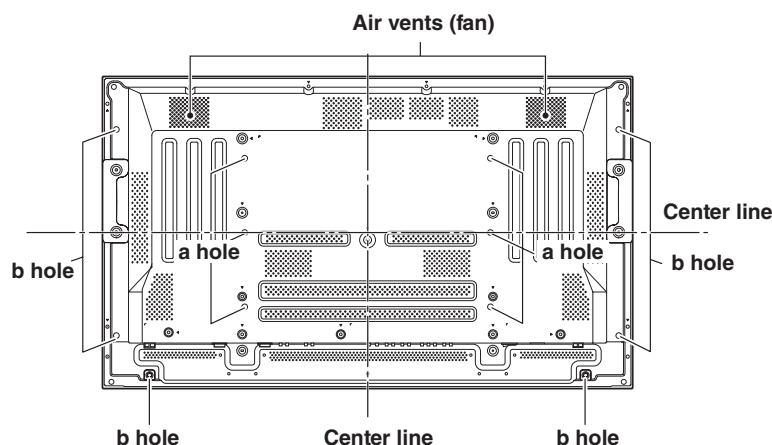
Please be sure to use an M8 (Pitch = 1.25 mm) bolt (Only this size bolt can be used).



Rear view diagram (PDP-5004/PDP-5014)



Side view diagram



Rear view diagram (PDP-4304/PDP-4314)

⚠ CAUTION

This display unit weighs at least 67 lbs (30 kg) and has little front-to-back depth, making it very unstable when stood on edge. As a result, two or more persons should cooperate when unpacking, moving, or installing the display.

⚠ CAUTION

This unit incorporates a thin design. To ensure safety if vibrated or shaken, please be sure to take measures to prevent the unit from tipping over.